

ACIDIC PRECIPITATION IN ONTARIO STUDY

**1981 SUMMARY STATISTICS
OF OBSERVED CONCENTRATION AND DEPOSITION
DAILY PRECIPITATION MONITORING NETWORK**

**Richard W. Kirk and Walter H. Chan
Special Studies Unit
Atmospheric Research and Special Program Section
Ontario Ministry of the Environment
Air Resources Branch
880 Bay Street, 4th Floor
Toronto, Ontario
Canada, M5S 1Z8**

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**A.P.I.O.S. Coordination Office
Ontario Ministry of the Environment
6th Floor, 40 St. Clair Avenue West
Toronto, Ontario
Canada, M4V 1P5
Project Co-ordinator: Dr. T. G. Brydges**

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	Charleston Lake	11
	Dorset	08
	Fernberg	16
	Forbes Township	13
	Graham Lake	12
	Lac La Croix	15
	Longwoods	02
	Melbourne	01
	Nithgrove	07
	North Easthope	03
	Railton	10
	Raven Lake	05
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	Wellesley	04
	Whitman Creek	09
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**PART VII SUMMARY STATISTICS OF OBSERVED DEPOSITION
BY STATION**

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<u>Station</u>	<u>Map Ref. No.</u>	
Balsam Lake	06	
Charleston Lake	11	69
Dorset	08	71
Fernberg	16	73
Forbes Township	13	75
Graham Lake	12	77
Lac La Croix	15	79
Longwoods	02	81
Melbourne	01	83
Nithgrove	07	85
North Easthope	03	87
Railton	10	89
Raven Lake	05	91
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PART I

INTRODUCTION

INTRODUCTION

The graphical and statistical summaries presented in this report pertain to the 1981 analytical results obtained from the Acidic Precipitation in Ontario Study (APIOS) daily precipitation monitoring network. The relevant data are listed in a previous report #ARB-19a-82-ARSP. All available data are utilized with the following modifications. Results reported as being unreliable or approximate are not included in the calculations. If it is noted that the actual result is greater than the reported value due to exceedance of upper limit, then the reported value is also excluded. If a detection limit is reported, a value corresponding to one half the detection limit is utilized for statistical calculations as reported in the statistical summaries. The reported precipitation gauge depth (standard rain gauge or nipher shielded snow gauge) is utilized in the calculation of deposition. If a rain gauge value is not available then the collected sample volume is converted to its equivalent precipitation depth and is used in the deposition calculation.

The Bar/Stem.Leaf charts presented in Parts III and IV are obtained from the SAS (Statistical Analysis System) Univariate procedure, SAS User's Guide 1979 Edition. The charting procedure optimizes as to what chart type to produce. Optimization is based upon sample size and range. The Stem.Leaf chart is the preferred type since it has the advantage of presenting more significant figures than the Bar chart. The Bar charts are self explanatory. The Stem.Leaf charts may best be explained by an elementary example.

Example of Stem.Leaf Chart: Conductance umho/cm

Stem	Leaf	#
2	<u>555556666778999</u>	15

multiply stem.leaf by 10***01

This chart would be interpreted as follows: of the 15 reported values, 5 results are equal to 2.5×10 umho/cm, 4 results are equal 2.6×10 umho/cm, 2 results are equal 2.7×10 umho/cm, 1 result is equal 2.8×10 umho/cm and 3 results are equal 2.9×10 umho/cm. It should be noted however that all the original significant figures may not be represented.

The statistical summaries presented in Parts V to VIII include mean (arithmetic/geometric), standard deviation (arithmetic/geometric), sample size, maximum, minimum, quartiles and volume weighted averages using precipitation gauge depths where appropriate. Users may assess the meaning of the statistical summaries in light of the sample distributions given in Parts IX and X.

The distribution of the observed concentrations and depositions is examined by calculating the skewness, kurtosis and D-statistic of the observed results and log-transformed observed results. Ideal skewness and kurtosis for a normal distribution are 0 and 3 respectively. Skewness is considered to be significant if calculated to be less than -1 or greater than +1. The Kolomogorov-Smirnov D-statistic is calculated and compared to a critical value. If the D-statistic exceeds the critical value then the null hypothesis of normality is rejected. In this report, the 95% confidence level is used. Note that, according to this analysis, with the exception of the soil-related substances, few of the measured parameters are normally distributed, even when the values are log-transformed.

PART II

STATION DESCRIPTION AND LOCATION MAP



APIOS EVENT DEPOSITION NETWORK SITE LOCATIONS

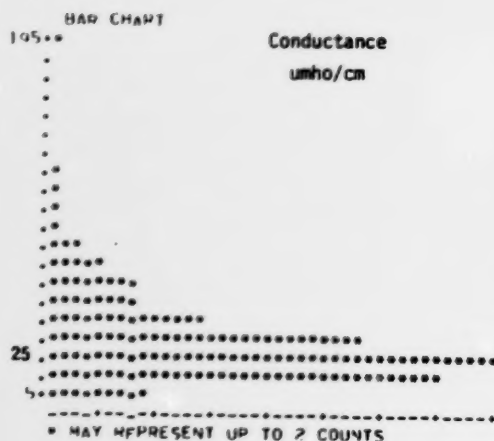
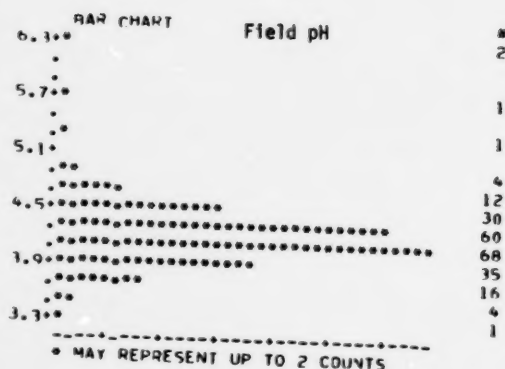
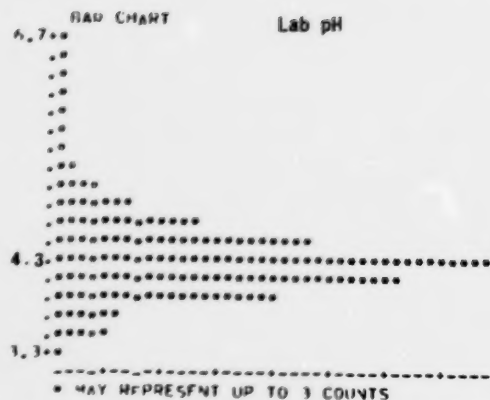
AREA	MOE REGION	STATION NAME	ELEVATION (m above MSL)	LATITUDE (North)	LONGITUDE (West)	UTM COORDINATES (Northing) (Easting)	
London	Southwestern	Longwoods Conservations Area	239	42°53'	81°29'	4747850	460700
		Melbourne	213	42°47'	81°33'	4736850	454600
		North Easthope	375	43°24'	80°53'	4805650	508650
		Wellesley	344	43°28'	80°46'	4812650	519500
Dorset	Central	Dorset Lab	320	45°13'	78°56'	5009600	662450
		Nithgrove	325	45°12'	79°04'	5006800	651600
		Balsam Lake Provincial Park	259	44°38'	78°51'	4943400	670070
		Raven Lake	274	44°37'	78°54'	4941600	665750
Kingston	Southeastern	Charleston Lake Provincial Park	92	44°30'	76°03'	4927500	417150
		Graham Lake	130	44°33'	75°52'	4936750	431450
		Railton	137	44°29'	76°49'	4927200	355100
		Whitman Creek	137	44°29'	76°49'	4927200	355100
Thunder Bay	Northwestern	Fernberg	506	47°50'	91°52'	5316000	585000
		Lac la Croix	368	48°21'	92°12'	5356000	538200
		Forbes Twsp.	324	48°38'	89°37'	5388000	308000
		Quetico Centre	420	48°43'	91°12'	5399000	632000

PART III

BAR/STEM. LEAF CHARTS OF OBSERVED CONCENTRATION BY REGION

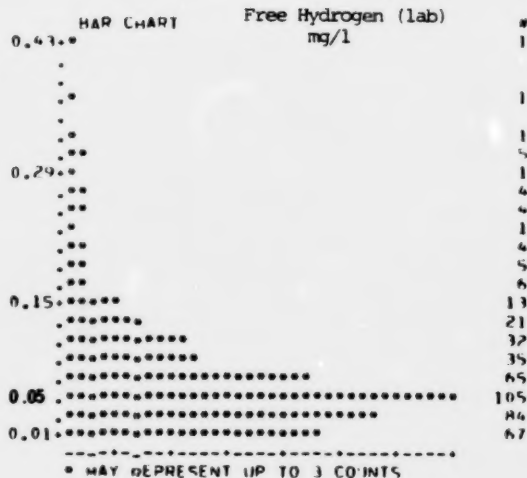
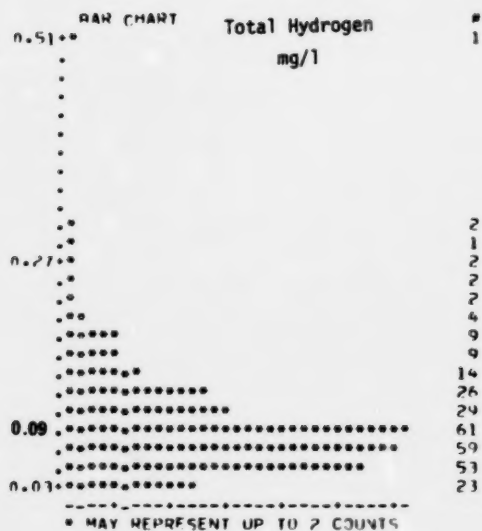
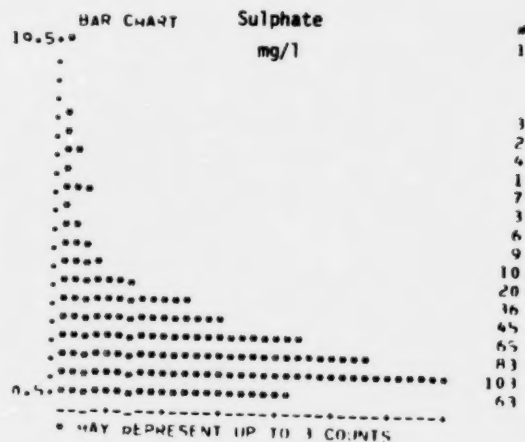
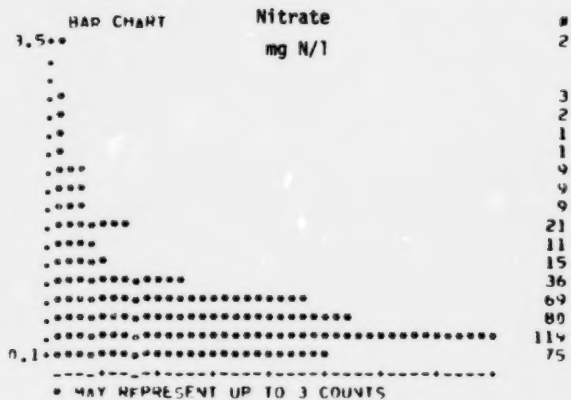


BAR/STEM LEAF CHARTS OF OBSERVED CONCENTRATION
CENTRAL REGION

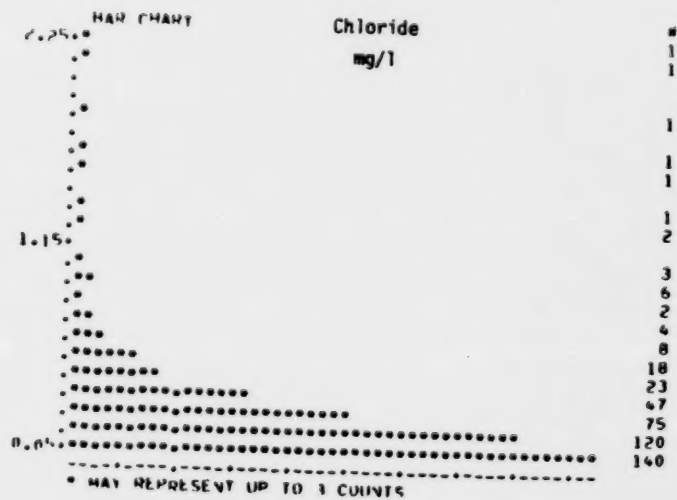
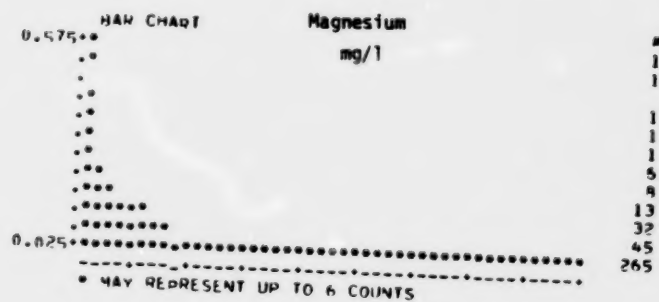
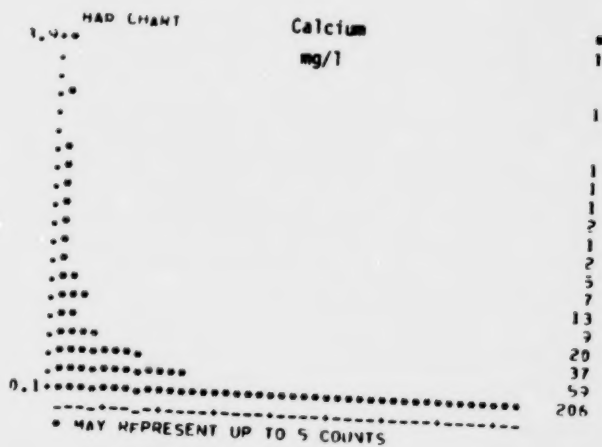


BAR/STEM.LEAF CHARTS OF OBSERVED CONCENTRATION

CENTRAL REGION



CENTRAL REGION



BAR/STEM LEAF CHARTS OF OBSERVED CONCENTRATION
CENTRAL REGION



BAR/STEM.LEAF CHARTS OF OBSERVED CONCENTRATION
NORTHWESTERN REGION

STEM LEAF	Lab pH	#
59 A		1
58		
57		
56		
55 2		1
54		
53 29		2
52		
51 268		3
50 0023767H		8
49 027		3
48 1233678		7
47 03446599		8
46 0112226788H		11
45 045		3
44 12467777889		11
43 0333746788H		11
42 113457789		9
41 11247788H9		10
40		
39 00		2
38 22		2
37 4		1
36		
35 6		1

MULTIPLY STEM.LEAF BY 10**=01

STEM LEAF	Conductance umho/cm	#
11 0		1
11		
10		
10		
9		
9		
8		
8		
7		
7 4		1
6		
6 2		1
5		
5		
4		
4		
3		
3 114		3
2 5555A		5
2 0122233444		10
1 55667H9		7
1 000012222334		12
0 5556A666777788999		16
0 4		1

MULTIPLY STEM.LEAF BY 10**=01

STEM LEAF	Field pH	#
52 0		1
50 056		3
48 42		2
46 2		1
44 045		3
42 A95579		6
40 7		1
38 1		1

MULTIPLY STEM.LEAF BY 10**=01

STEM LEAF	Gauge Depth mm	#
18 9		1
17		
16		
15 06		2
14 02		2
13 19		2
12 000H		4
11		
10 0		1
9		
8		
7 0599		4
6 9		1
5 05579999		8
4 000027		7
3 022224889		9
2 02346A688		9
1 00000222234666779		18
0 111112222333334444555556677778888899		39

BAR/STEM.LEAF CHARTS OF OBSERVED CONCENTRATION

NORTHWESTERN REGION

STEM LEAF	Nitrate mg N/l	#
34 7		1
32		
30		
28		
26 0		1
24		
22		
20		
18 AB		2
16		
14		
12		
10		
8 156A9		5
6 117A122467		10
4 034A2234456H		12
2 001222345557789900233569		24
0 0012467789001112223333466677899		31

MULTIPLY STEM.LEAF BY 10**-01

STEM LEAF	Free Hydrogen (lab) mg/l	#
26 5		1
24		
22		
20		
18		
16 4		1
14 11		2
12 66		2
10		
8		
6 2256668A26AA		12
4 2223467777012446H9		1A
2 011112444555A92233444456H9		2A
0 134577H444490001233345555664AA9		32

MULTIPLY STEM.LEAF BY 10**-02

STEM LEAF	Sulphate mg/l	#
14 0		
13 3		
12		
11		
10		
9		
8 37		
7 6		
6 5		
5 1		
4		
3 145		
2 33344		
1 0001222233345777788899		
0 111111122222333333444445556666777788888899		

STEM LEAF	Total Hydrogen mg/l	#
10 7		1
10		
9 89		2
9 000274		6
8 57		2
8 123		3
7 58H		3
7 23		2
6 AB		2
6 12234		5
5 567		3
5 0001334		7
4 55889		5
4 12		2
3 6899		4
3 74		2

MULTIPLY STEM.LEAF BY 10**-02

STEM LEAF	Chloride	
6 0	mg/l	1
5 2		1
4 2		1
3 89		2
3 2		1
2		
2 222344		6
1 55564		5
1 00111224444		12
0 555566667777788889999		22
0 00000000000000011222222344444444444		36

MULTIPLY STEM.LEAF BY 10 ⁰⁰⁻⁰¹		

BAR/STEM.LEAF CHARTS OF OBSERVED CONCENTRATION
NORTHWESTERN REGION

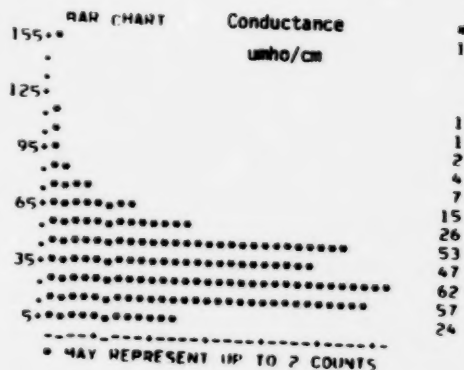
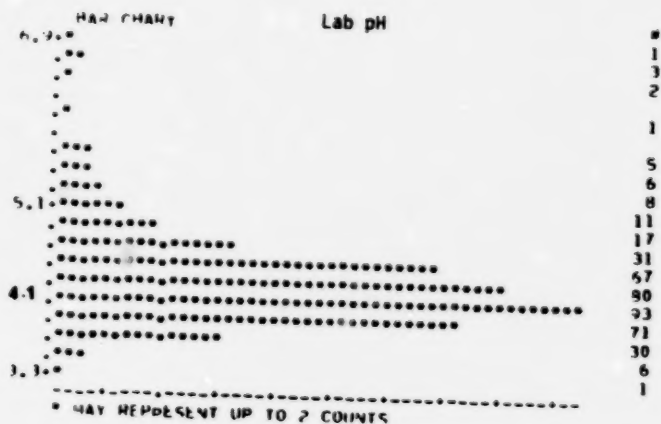
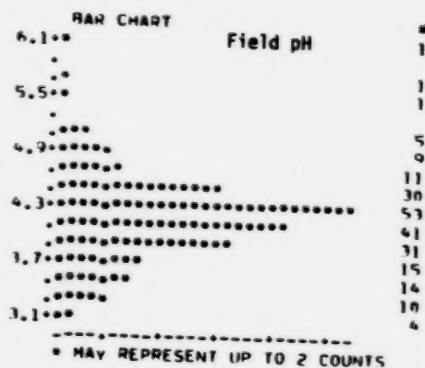
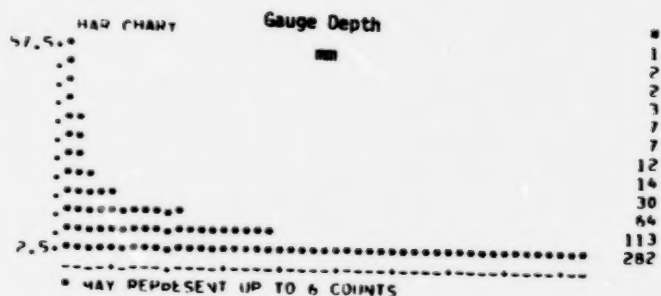
STEM	LEAF	Ammonium	#
25	0	mg N/l	1
24			
23			
22			
21			
20			
19			
18			
17			
16			
15			
14			
13			
12			
11	8		1
10	0		1
9	1		1
8			
7	4		1
6			
5	35		2
4	6		1
3	133569		6
2	00145666666777		15
1	01112744555667		14
0	00011111123455566778999		24

MULTIPLY STEM.LEAF BY 10**-01			

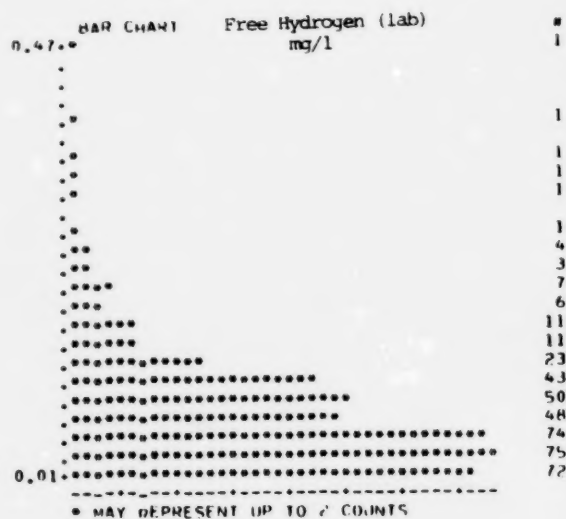
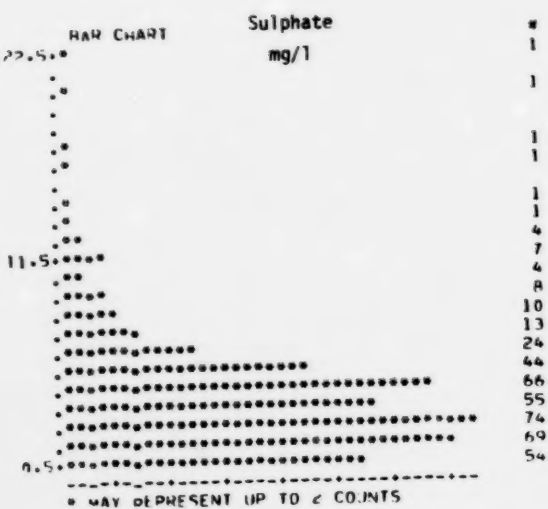
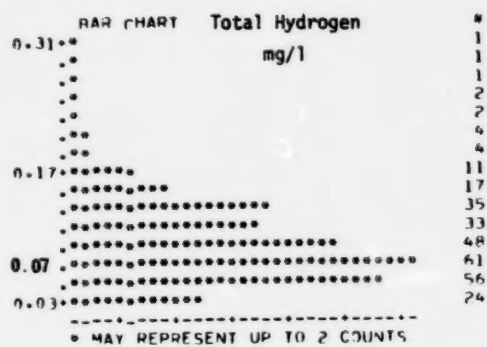
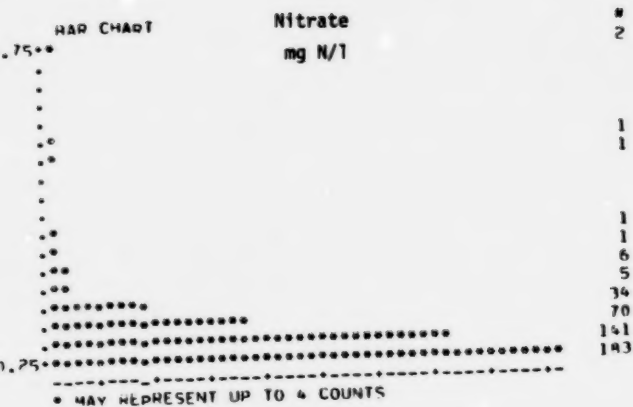
STEM	LEAF	Sodium	#
42	n	mg/l	1
40			
38			
36			
34			
32			
30			
28			
26			
24	000		3
22	n		1
20	00		2
18			
16	00		2
14			
12	0000n0		6
10	000		3
8	0000		4
6	0000n00		7
4	0000n0		6
2	0000n00000000000000		18
0	555550000000000000		16

MULTIPLY STEM.LEAF BY 10**-02			

BAR/STEM-LEAF CHARTS OF OBSERVED CONCENTRATION
SOUTHEASTERN REGION

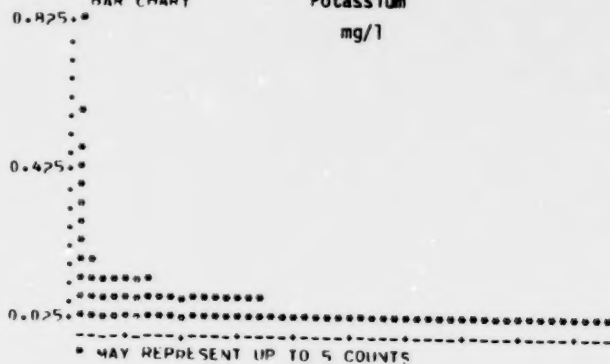


SOUTHEASTERN REGION

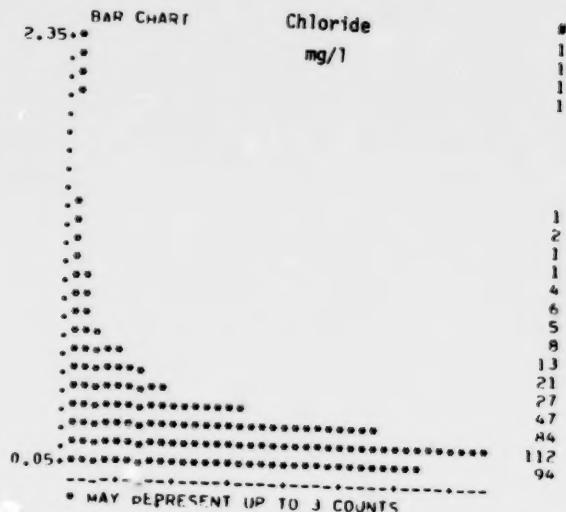


BAR/STEM-LEAF CHARTS OF OBSERVED CONCENTRATION
SOUTHEASTERN REGION

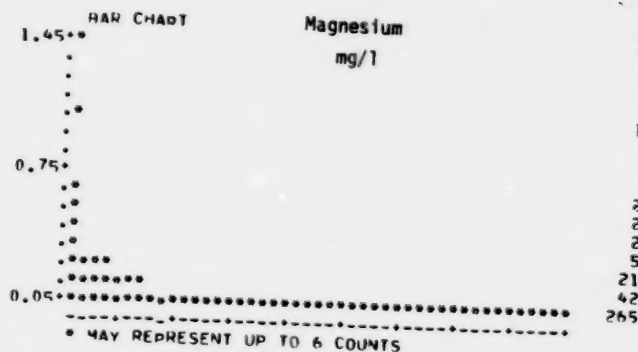
BAR CHART



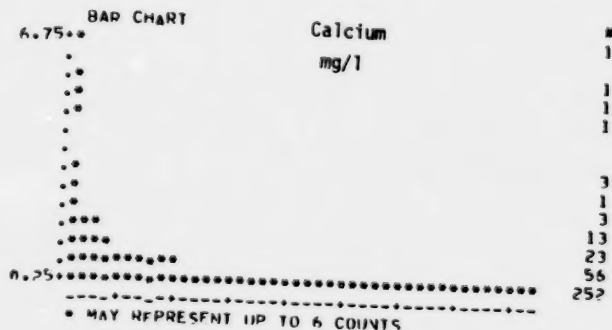
BAR CHART



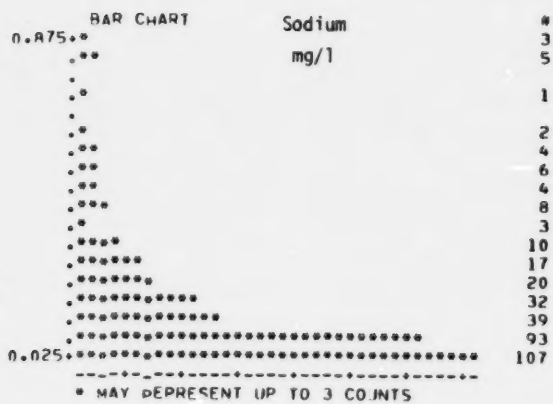
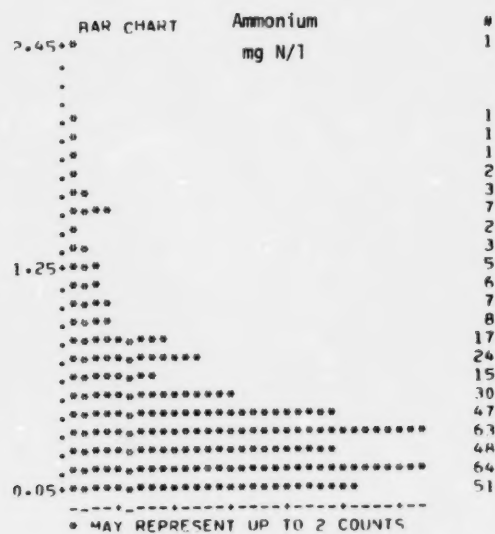
BAR CHART



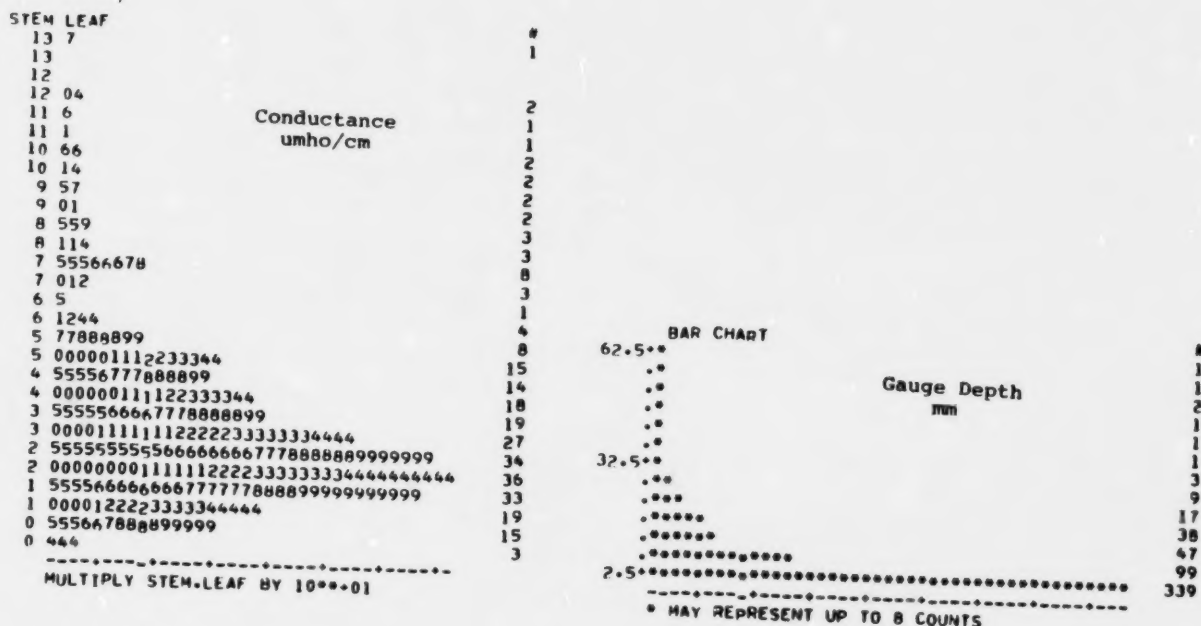
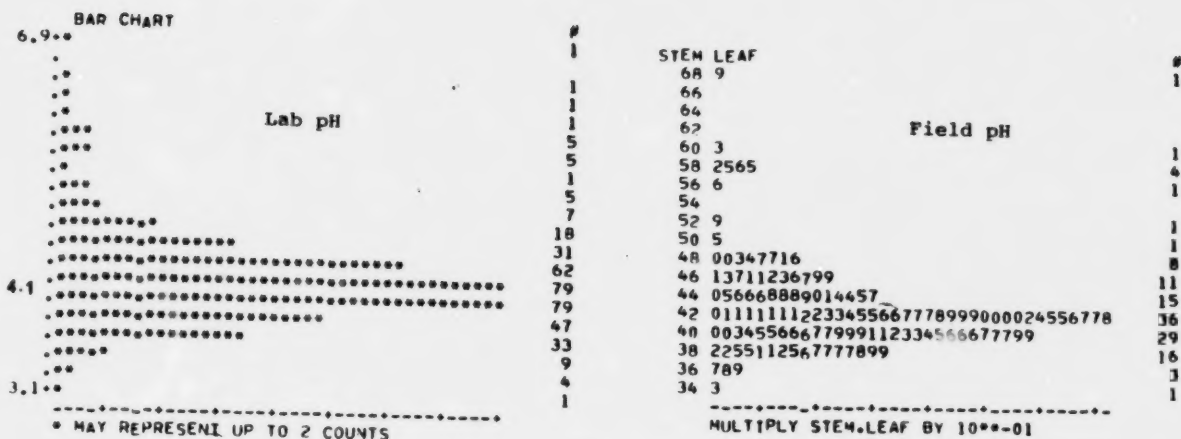
BAR CHART



BAR/STEM.LEAF CHARTS OF OBSERVED CONCENTRATION
SOUTHEASTERN REGION

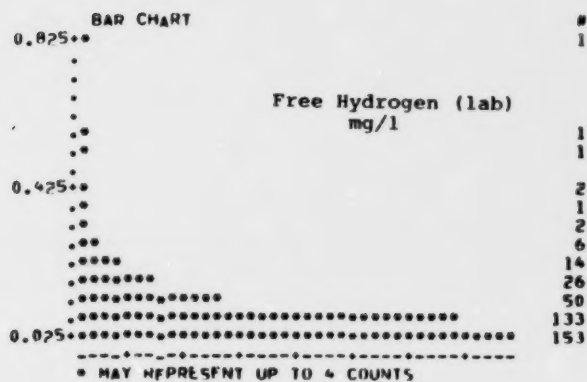
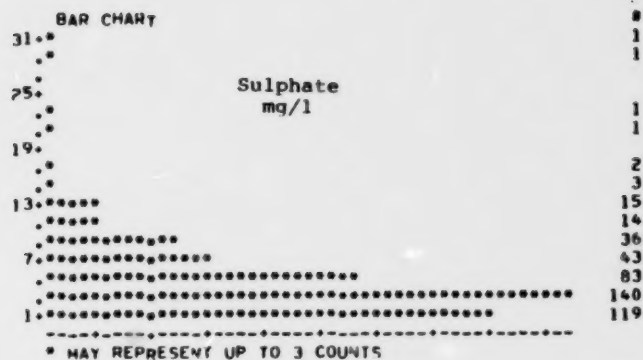
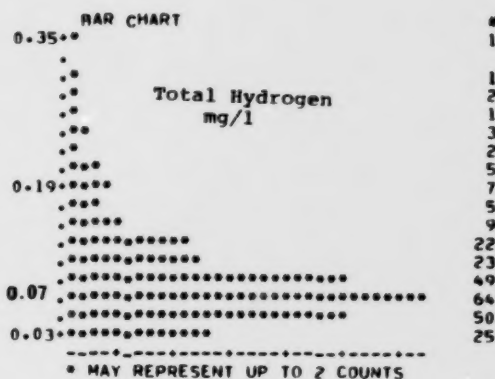
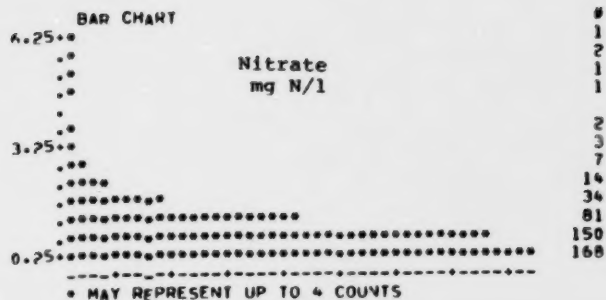


BAR/STEM.LEAF CHARTS OF OBSERVED CONCENTRATION SOUTHWESTERN REGION



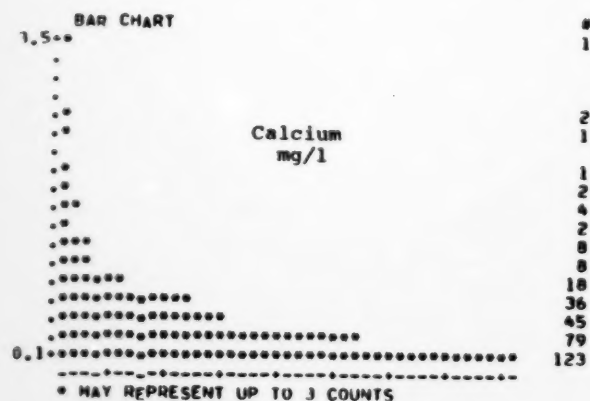
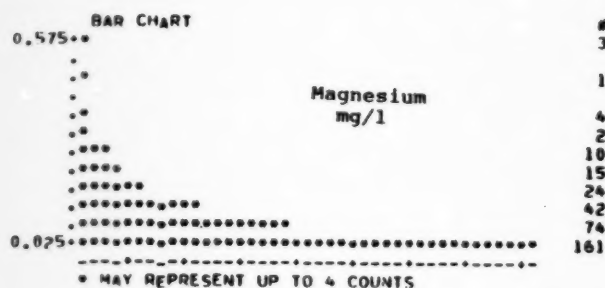
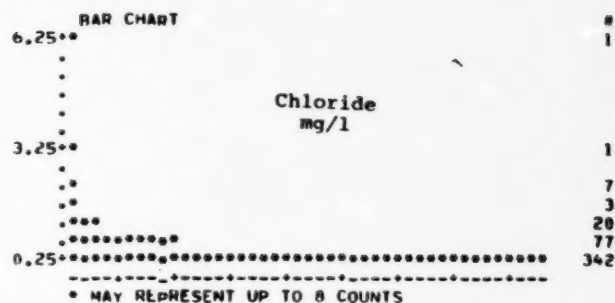
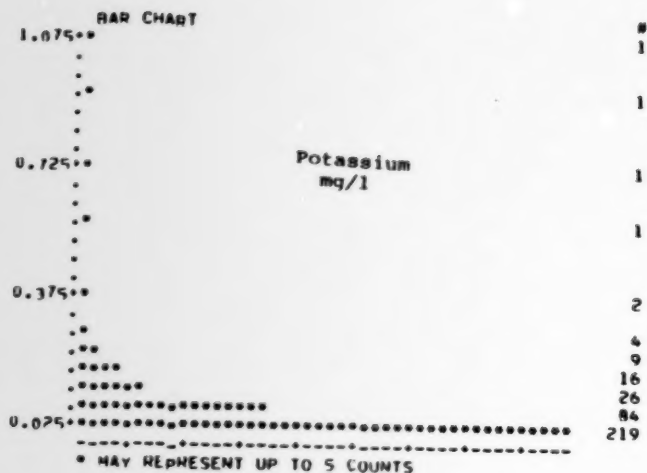
BAR/STEM.LEAF CHARTS OF OBSERVED CONCENTRATION

SOUTHWESTERN REGION



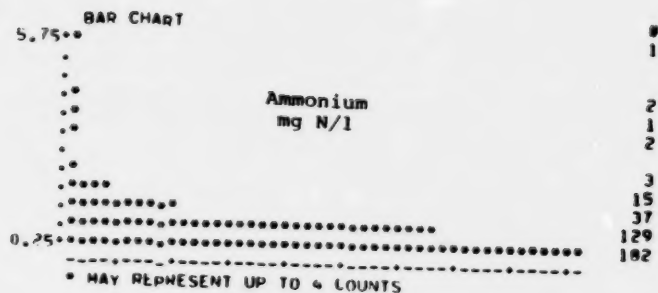
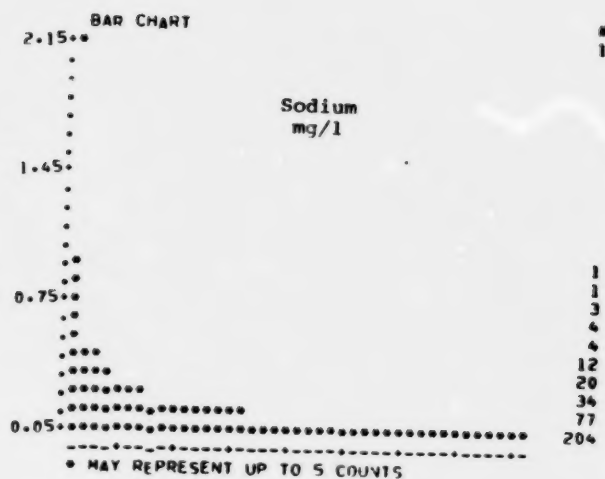
BAR/STEM.LEAF CHARTS OF OBSERVED CONCENTRATION

SOUTHWESTERN REGION



BAR/STEM. LEAF CHARTS OF OBSERVED CONCENTRATION

SOUTHWESTERN REGION

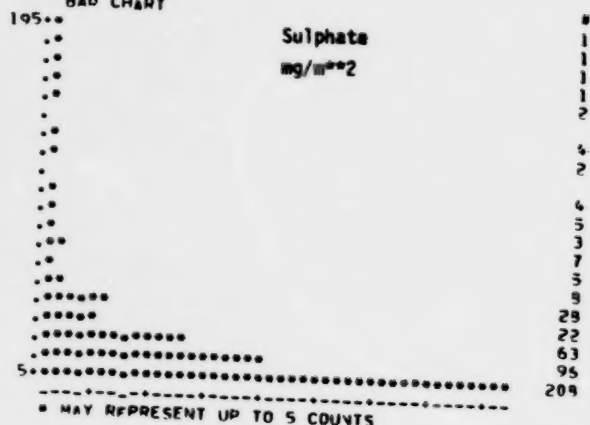


PART IV

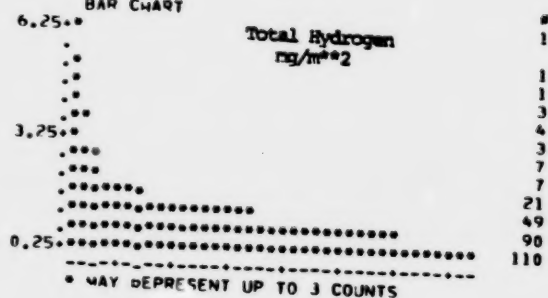
BAR/STEM.LEAF CHARTS OF OBSERVED DEPOSITION BY REGION

-17-
BAR/STEM-LEAF CHARTS OF OBSERVED DEPOSITION
CENTRAL REGION

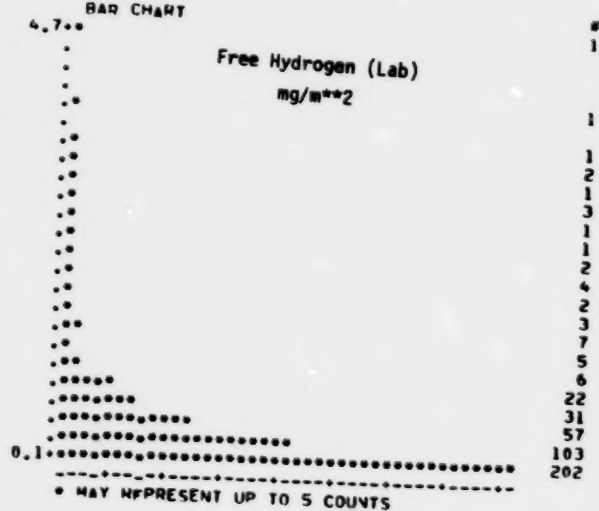
BAR CHART



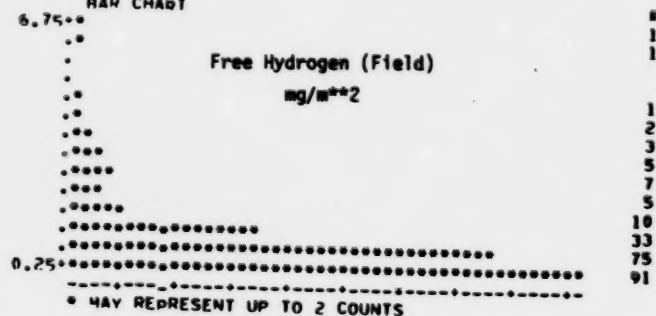
BAR CHART



BAR CHART



BAR CHART



BAR/STEM. LEAF CHARTS OF OBSERVED DEPOSITION

CENTRAL REGION

BAR CHART

10.5

Calcium
mg/m²

#

1

2

1

1

1

3

2

4

3

2

4

10

13

13

33

90

183

0.5

* MAY REPRESENT UP TO 4 COUNTS

BAR CHART

21.5

Nitrate
mg N/m²

#

1

1

3

2

1

2

5

6

6

10

5

12

10

34

39

43

68

100

114

14.5

7.5

0.5

* MAY REPRESENT UP TO 3 COUNTS

BAR CHART

3.9

Magnesium
mg/m²

#

2

1

1

1

2

1

1

5

2

3

12

16

23

65

239

0.1

* MAY REPRESENT UP TO 5 COUNTS

BAR CHART

>7

Chloride
mg/m²

#

1

1

2

15

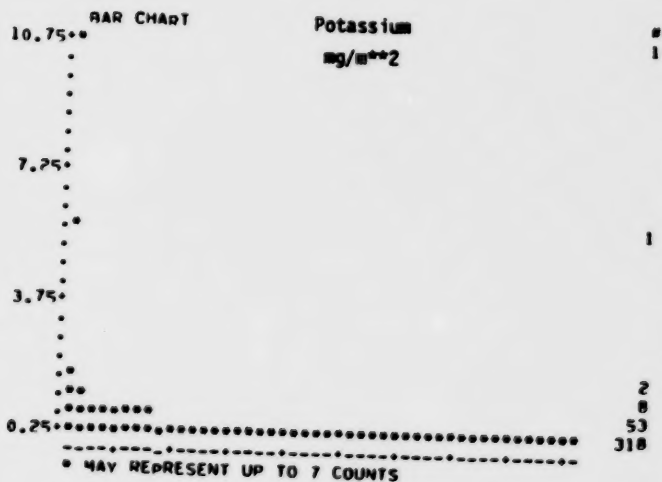
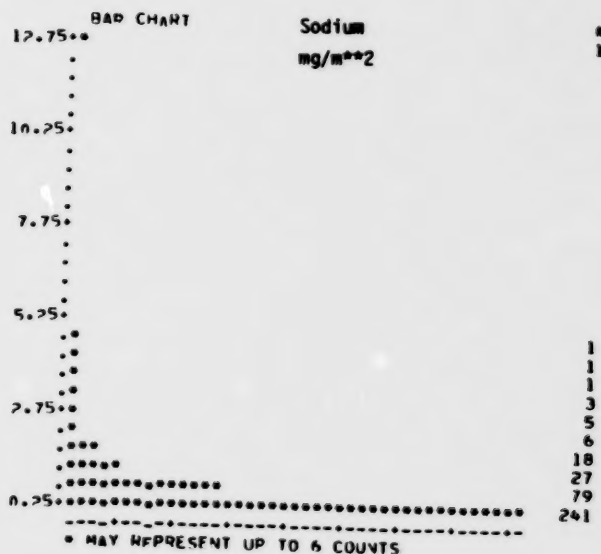
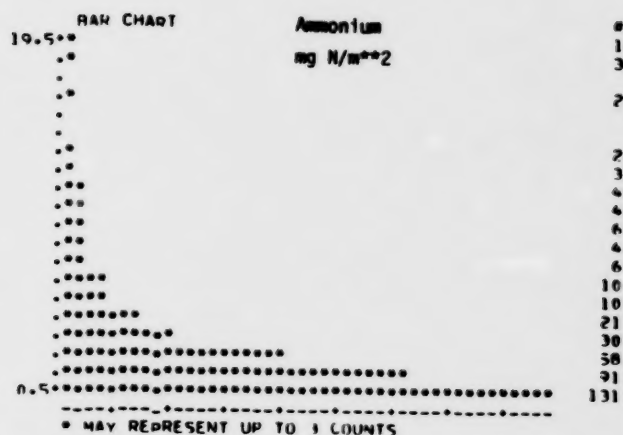
51

384

1

* MAY REPRESENT UP TO 8 COUNTS

BAR/STEM-LEAF CHARTS OF OBSERVED DEPOSITION
CENTRAL REGION



BAR/STEM.LEAF CHARTS OF OBSERVED DEPOSITION
NORTHWESTERN REGION

STEM LEAF

44 4	
42	
40	
38	
36	
34	
32	
30	
28	
26 7	
24	
22 5	1
20 1	
18 0	1
16	1
14 2	
12	1
10 2999	
8 0279	4
6 36602A	4
4 2456846	6
2 3446A780n00222568	7
0 0011222234444556666688A9001112223445567A	18

Sulphate
mg/m**2

1

STEM LEAF

17 A		#
16		1
15		
14	Total Hydrogen	
13	mg/m**2	
12 A		1
11		
10 7		1
9		1
8 9		
7 39		1
6 011		2
5 0139		3
4 2677		4
3 001249		4
2 00012224449		6
1 1223466888999		11
0 78		13
		2

MULTIPLY STEM.LEAF BY 10**-01

STEM LEAF

10 A	
10	
9	
9 2	
8	
8	
7	
7	
6	
6 2	
5	
5 1	1
4 9	
4 0	1
3 57	1
3 4	
2 557A	2
2 000224	1
1 55679	4
1 1122234	6
0 55556A66667777A88889	5
0 000011111111111111112222222222333311344	7
	21
	42

Free Hydrogen (Lab)
mg/m**2

1

Free Hydrogen (Field)
mg/m**2

STEM LEAF		#
8 7		1
8 1		1
4		
2 1256A457		8
0 4456A333		8

MULTIPLY STEM.LEAF BY 10**-01

BAR/STEM-LEAF CHARTS OF OBSERVED DEPOSITION NORTHWESTERN REGION

STEM LEAF

40 6
39
36
34
32
30 00
28
26
24
22
20 1
18
16 0
14 000
12 1
10
8 49
6 5901
4 345857
2 003460009
0 223337445566668889900000022444555666789

Magnesium
mg/m**2

1

2

1

1

3

1

2

4

6

9

39

MULTIPLY STEM-LEAF BY 10**-02

RAR CHART

3.3**

1.7*

0.1

Chloride
mg/m**2

#

1

3

5

17

61

* MAY REPRESENT UP TO 2 COUNTS

STEM LEAF

27 0
26
24
24
23
22
21 0
20
19
18
17
16
15 00
14 2
13
12 8
11 37
10 6
9 5
8 378
7 289
6
5 2
4 56788
3 002224
2 0024478
1 001221445777
0 112234455566667778899

Calcium
mg/m**2

#

1

1

2

1

1

2

1

1

3

3

1

5

6

7

12

22

MULTIPLY STEM-LEAF BY 10**-01

STEM LEAF

10 1
9
9
8 5
7
7
6
6
5
5
4 5
4 0
3 49
3 00023
2 888
2 111
1 566677
1 00000112334
0 55556666777888899999
0 00000111111112222233333444

Nitrate
mg N/m**2

#

1

1

1

2

5

3

3

6

12

21

70

BAR/STEM. LEAF CHARTS OF OBSERVED DEPOSITION

NORTHWESTERN REGION

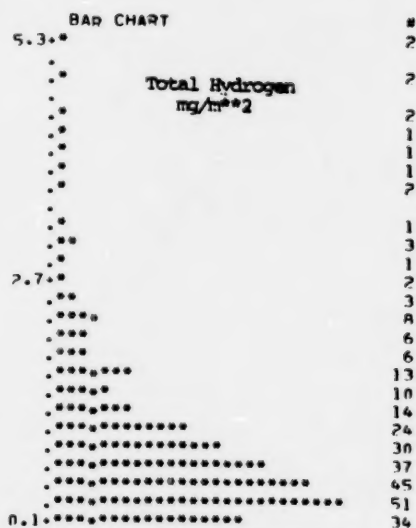
STEM	LEAF	Potassium	#
10	2	mg/m**2	1
9			
9			
8			
8			
7	89		2
7			
6			
6			
5			
5	0		1
4			
4	2		1
3	8		1
3			
2	8		1
2	0444		4
1	5		1
1	011123133344		12
0	556666677778889999		19
0	11111112222222223333334444		27

MULTIPLY STEM. LEAF BY 10**-01

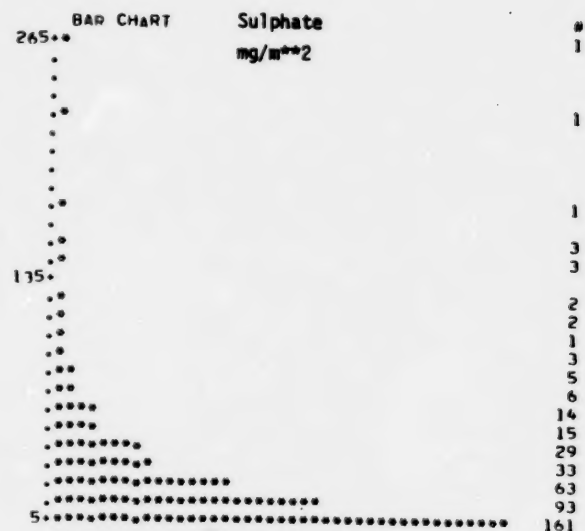
STEM	LEAF	Sodium	#
34	5	mg/m**2	1
32			
30			
28			
26			
24			
22			
20	1		1
18			
16			
14	7		1
12			
10	0		1
8	04		1
6	7		2
4	8124		1
2	0122344780469		6
0	12222233313444445556666777888899900113334569		13

MULTIPLY STEM. LEAF BY 10**-01

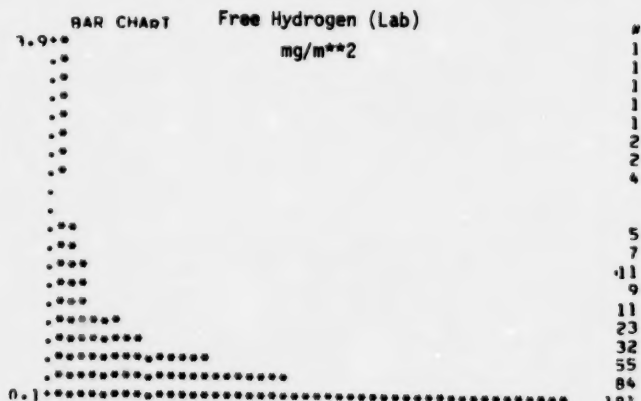
STEM	LEAF	Ammonium	#
5	5	mg N/m**2	1
5			
4			
4			
3			
3			
2	678		3
2	4		1
1	5555669		7
1	000133		6
0	55566666667788999		17
0	000000000001111122222233333344		32



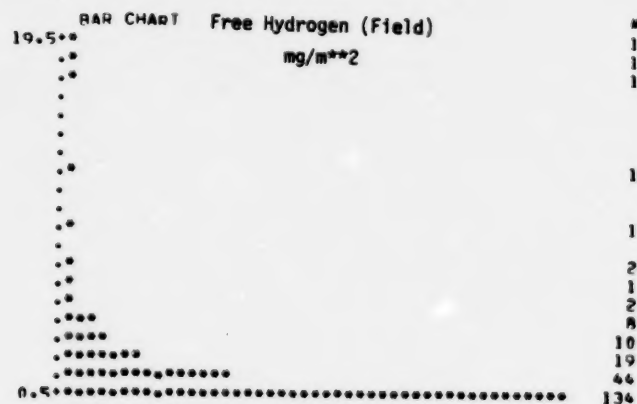
* MAY REPRESENT UP TO 2 COUNTS



* MAY REPRESENT UP TO 4 COUVTS

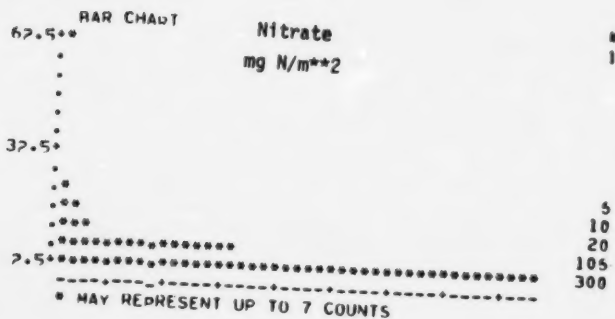
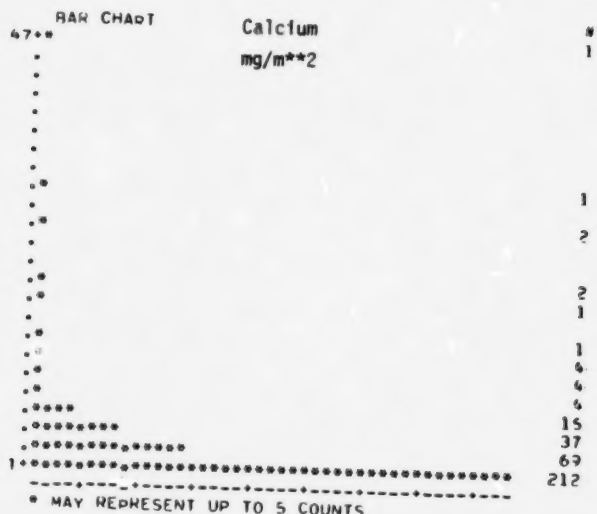
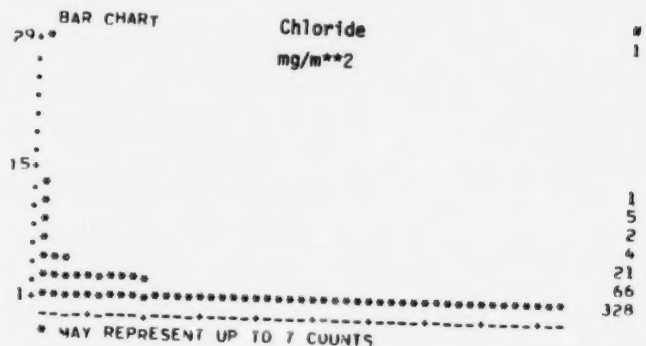
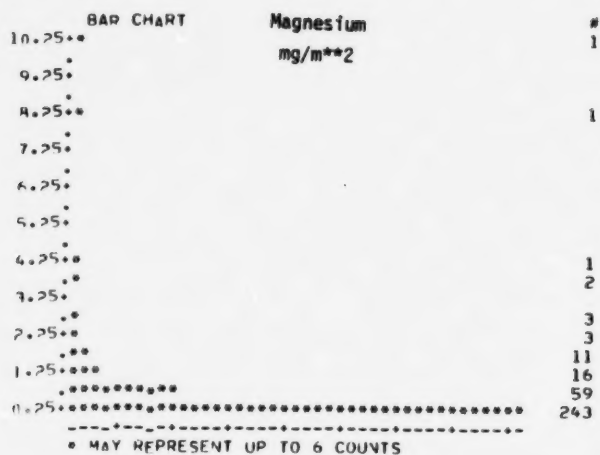


* MAY REPRESENT UP TO 4 COUNTS

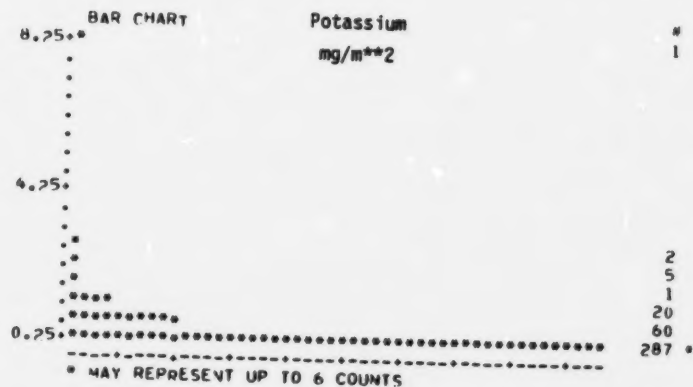
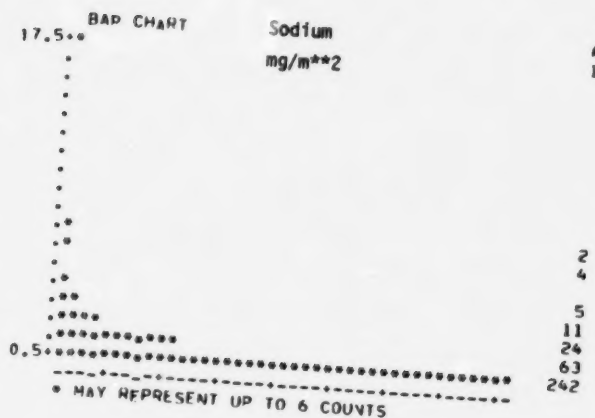
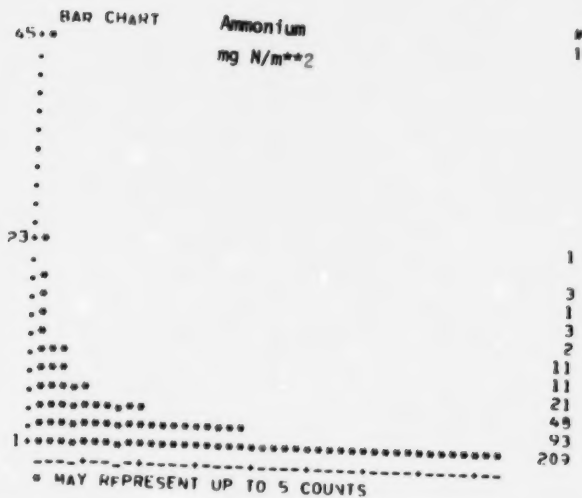


• MAY REPRESENT UP TO 3 COUNTS

BAR/STEM.LEAF CHARTS OF OBSERVED DEPOSITION.
SOUTHEASTERN REGION



BAR/STEM.LEAF CHARTS OF OBSERVED DEPOSITION
SOUTHEASTERN REGION



BAR/STEM.LEAF CHARTS OF OBSERVED DEPOSITION

SOUTHWESTERN REGION

STEM LEAF #

30 79	2
28 0	1
26 1	1
24 1	1
22 7	1
20 398	3
18 46	2
16 6367	4
14 156	3
12 0035	4
10 23335577110	11
8 001123443344459	15
6 2246678891118	13
4 223444445678880033677	21
2 0122346601111777889	19
0 000111444455567799911122499	27

Free Hydrogen (Field)
mg/m**2

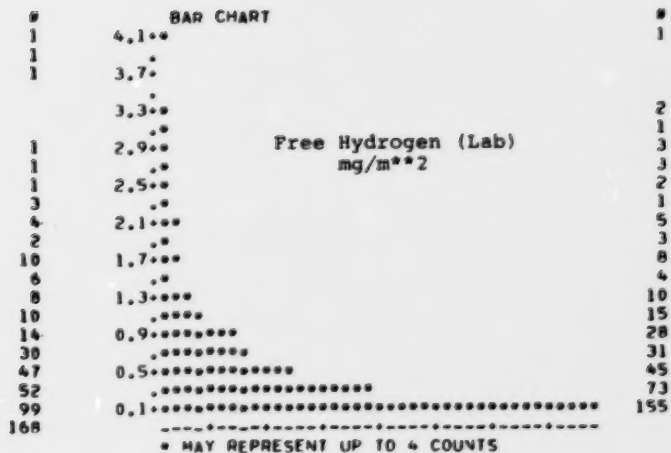
MULTIPLY STEM.LEAF BY 10**-01

STEM LEAF #

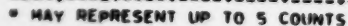
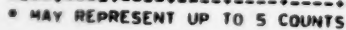
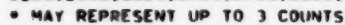
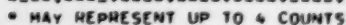
52 1	1
50 2	1
48	
46	
44 2	1
42	
40 5	1
38 82689	5
36 1	1
34 73	2
32 9	1
30 69	2
28 4	1
26 03	2
24 23	2
22 079889	6
20 3797	4
18 33681	5
16 024699245555667899	18
14 11255579034556	14
12 023347889022268	15
10 01115556778801233346788889	26
8 023457777902333446677899	24
6 00012226679912233344467778999	29
4 0001445568999902256667888	25
2 001112223344445777888899902234556678889	40
0 455666788888889000000001112234466667778899	43

Total Hydrogen
mg/m**2

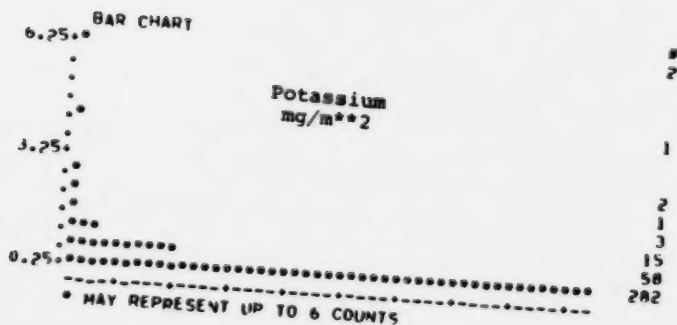
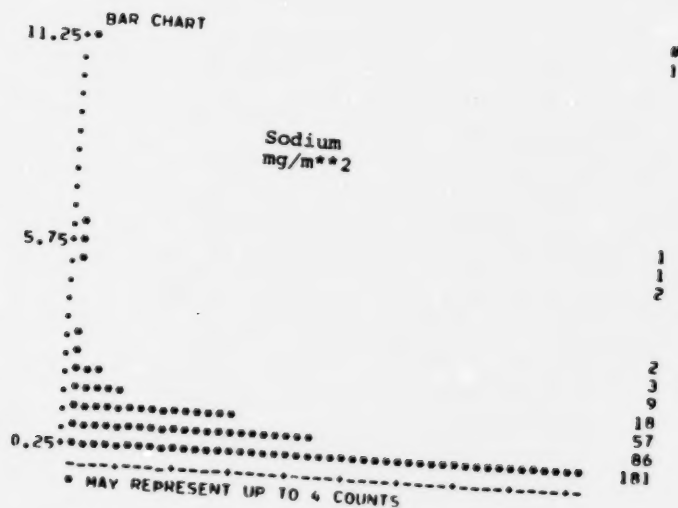
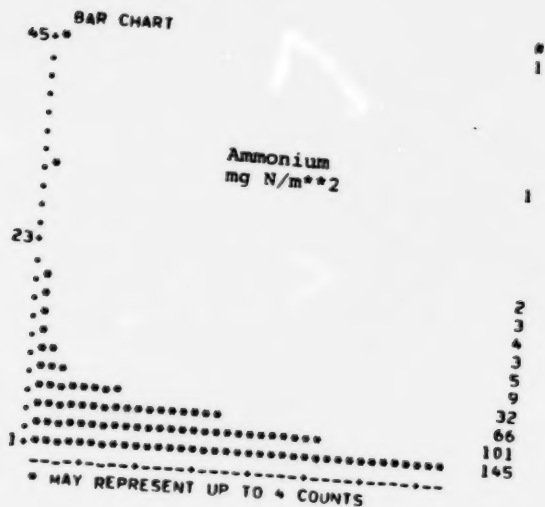
MULTIPLY STEM.LEAF BY 10**-01



SOUTHWESTERN REGION



BAR/STEM.LEAF CHARTS OF OBSERVED DEPOSITION
SOUTHWESTERN REGION



PART V

SUMMARY STATISTICS OF OBSERVED CONCENTRATION BY STATION



ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : HALSAM LAKE/DAILY PRECIPITATION #06

PERIOD OF REPORT : JAN 1.81 TO JAN 1.82

# OF SAMPLES	PRECIP.	CONDUCT.	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 UG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	116.0	67.0	54.00	104.00	69.0000	99.00	101.000
MINIMUM	31.2	97.0	6.23	6.58	0.2520	14.50	3.400
RANGE	0.2	5.2	3.53	3.43	0.0322	0.20	0.050
ARITH. MEAN	31.0	91.8	2.70	3.15	0.2198	14.30	3.350
ARITH. STD. DEV.	6.4	31.3	4.26	4.36	0.0927	3.64	0.650
GEOM. MEAN	6.7	19.3	0.40	0.52	0.0435	3.19	0.563
GEOM. STD. DEV.	3.5	26.0	4.24	4.33	0.0841	2.49	0.461
1ST QUANTILE	1.2	0.6	0.09	0.11	0.4406	0.94	0.878
2ND QUANTILE	1.4	16.8	4.08	4.07	0.0602	1.32	0.260
3RD QUANTILE	3.4	26.8	4.20	4.27	0.0840	2.45	0.515
VOL. WGT. MEAN	8.2	39.3	4.35	4.53	0.1094	4.77	0.795
	*****	29.5	*****	*****	0.0913	3.00	0.475

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIJS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY PRECIPITATION #06

PERIOD OF REPORT : JAN 1-81 TO JAN 1-82

	CALCIUM		CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM AS N		FREE H. LAB	
	MG/L		MG/L		MG/L		MG/L		MG/L		MG/L		MG/L	
# OF SAMPLES	:	61.000	:	101.000	:	86.000	:	92.000	:	87.000	:	88.000	:	104.0000
MAXIMUM	:	2.200	:	1.690	:	0.425	:	0.700	:	0.740	:	1.450	:	0.3715
MINIMUM	:	0.010	:	0.005	:	0.002	:	0.005	:	0.005	:	0.004	:	0.0003
RANGE	:	2.190	:	1.685	:	0.423	:	0.695	:	0.735	:	1.446	:	0.3713
ARITH. MFAN	:	0.383	:	0.226	:	0.056	:	0.042	:	0.105	:	0.395	:	0.0698
ARITH. STD. DEV.	:	0.491	:	0.251	:	0.078	:	0.092	:	0.142	:	0.362	:	0.0672
GEOM. MEAN	:	0.171	:	0.121	:	0.021	:	0.020	:	0.050	:	0.227	:	0.0436
GEOM. STD. DEV.	:	1.334	:	1.313	:	1.544	:	1.112	:	1.304	:	1.232	:	1.2060
1ST QUARTILE	:	0.070	:	0.070	:	0.005	:	0.010	:	0.020	:	0.115	:	0.0292
2ND QUARTILE	:	0.130	:	0.130	:	0.020	:	0.020	:	0.060	:	0.269	:	0.0531
3RD QUARTILE	:	0.555	:	0.310	:	0.075	:	0.040	:	0.115	:	0.620	:	0.0851
VOL. WGT. MEAN	:	0.246	:	0.182	:	0.039	:	0.040	:	0.067	:	0.320	:	0.0597

PAGE : 2

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIJS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY PRECIPITATION #11

PERIOD OF REPORT : JAN 25.81 TO JAN 1.82

PERIOD OF REPORT : JAN 25,81 TO JAN 1,82				PAGE : 1			
	PRECIP.	CONDUCT.	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 UG/L	SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES	168.0	87.0	64.00	129.00	88.0000	129.00	130.000
MAXIMUM	47.4	103.0	5.72	5.77	0.2516	16.20	8.900
MINIMUM	0.0	3.2	3.09	3.48	0.0276	0.15	0.010
RANGE	47.4	99.8	2.63	2.29	0.2240	16.05	8.890
ARITH. MEAN	6.0	33.8	4.16	4.31	0.0964	3.80	0.766
ARITH. STD. DEV	7.7	20.1	0.48	0.46	0.0513	2.90	0.939
GEOM. MEAN	2.4	28.0	4.13	4.29	0.0842	2.72	0.494
GEOM. STD. DEV.	1.6	0.7	0.12	0.10	0.5280	0.90	0.994
1ST QUARTILE	0.8	17.1	3.89	3.99	0.0611	1.40	0.280
2ND QUARTILE	2.6	31.2	4.19	4.24	0.0831	3.42	0.525
3RD QUARTILE	8.1	46.3	4.40	4.52	0.1281	5.10	0.995
VOL. WGT. MEAN	*****	28.7	*****	*****	0.0876	2.77	0.453

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY PRECIPITATION #11

PERIOD OF REPORT : JAN 25.81 TO JAN 1.82

# OF SAMPLES	CALCIUM		CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM AS N		FREE H ₂ O LAB	
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
MAXIMUM	105.000	124.000	104.000	109.000	103.000	120.000	129.0000	2.050	0.001	0.0017	0.3294	0.0748	0.0633	0.0488
MINIMUM	5.200	2.300	1.060	0.380	0.640	2.050	0.3311	0.005	0.005	0.0017	0.3294	0.0748	0.0633	0.0488
RANGE	0.020	0.005	0.002	0.375	0.635	0.001	0.0017	0.005	0.005	0.0017	0.3294	0.0748	0.0633	0.0488
ARITH. MEAN	5.180	2.295	1.057	0.375	0.635	2.049	0.3294	0.005	0.005	0.0017	0.3294	0.0748	0.0633	0.0488
ARITH. STD. DEV.	0.354	0.254	0.067	0.038	0.136	0.420	0.0748	0.038	0.136	0.420	0.0748	0.0748	0.0633	0.0488
GEOM. MEAN	0.619	0.319	0.129	0.050	0.156	0.379	0.0633	0.050	0.156	0.379	0.0633	0.0633	0.0633	0.0488
GEOM. STD. DEV.	0.166	0.137	0.024	0.022	0.065	0.232	0.0488	0.022	0.065	0.232	0.0488	0.0488	0.0488	0.0488
1ST QUARTILE	1.207	1.254	1.497	1.025	1.335	1.470	1.0707	1.025	1.335	1.470	1.0707	1.0707	1.0707	1.0707
2ND QUARTILE	0.070	0.080	0.008	0.010	0.020	0.147	0.0299	0.010	0.020	0.147	0.0299	0.0299	0.0299	0.0299
3RD QUARTILE	0.170	0.170	0.025	0.020	0.070	0.336	0.0556	0.020	0.070	0.336	0.0556	0.0556	0.0556	0.0556
VOL. WGT. MEAN	0.305	0.315	0.062	0.040	0.195	0.560	0.1012	0.040	0.195	0.560	0.1012	0.1012	0.1012	0.1012
	0.179	0.155	0.031	0.027	0.102	0.303	0.0579	0.027	0.102	0.303	0.0579	0.0579	0.0579	0.0579

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY PRECIPITATION #08

PERIOD OF REPORT : JAN 1.81 TO JAN 1.82

	PRECIP. MM	CONDUCT. JMH0/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 UG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES :	144.0	87.0	66.00	132.00	84.0000	132.00	133.000
MAXIMUM :	48.2	195.0	4.77	5.37	0.5116	19.90	2.600
MINIMUM :	0.1	5.5	3.24	3.37	0.0280	0.02	0.005
RANGE :	48.1	189.5	1.53	2.00	0.4836	19.87	2.595
ARITH. MEAN :	6.4	35.0	4.14	4.29	0.1013	3.23	0.625
ARITH. STD. DEV :	7.8	29.1	0.29	0.37	0.0703	3.06	0.550
GEOM. MEAN :	3.3	27.4	4.13	4.27	0.0669	2.11	0.408
GEOM. STD. DEV. :	1.3	0.7	0.07	0.09	0.5232	1.05	1.061
1ST QUARTILE :	1.6	18.6	3.98	4.02	0.0638	1.25	0.250
2ND QUARTILE :	3.4	25.1	4.15	4.28	0.0804	2.35	0.435
3RD QUARTILE :	7.3	40.8	4.38	4.47	0.1171	4.00	0.855
VOL. WGT. MEAN :	*****	31.1	*****	*****	0.0960	3.03	0.464

**** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

#08

STATION NAME : DORSET/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1-81 TO JAN 1-82

PAGE : 2

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H. LAg MG/L
# OF SAMPLES :	112.000	133.000	111.000	115.000	115.000	114.000	132.0000
MAXIMUM :	2.000	2.100	0.355	0.590	1.650	2.150	0.4266
MINIMUM :	0.005	0.005	0.002	0.005	0.005	0.001	0.0043
RANGE :	1.995	2.095	0.353	0.585	1.645	2.149	0.4223
ARITH. MEAN :	0.230	0.190	0.036	0.034	0.079	0.387	0.0719
ARITH. STD. DEV :	0.332	0.246	0.059	0.063	0.178	0.406	0.0626
GEOM. MEAN :	0.107	0.108	0.015	0.018	0.035	0.181	0.0517
GEOM. STD. DEV. :	1.244	1.173	1.359	1.061	1.176	1.645	0.8597
1ST QUARTILE :	0.040	0.060	0.005	0.005	0.015	0.096	0.0339
2ND QUARTILE :	0.110	0.130	0.015	0.020	0.030	0.240	0.0519
3RD QUARTILE :	0.250	0.235	0.035	0.040	0.085	0.540	0.0955
VOL. WGT. MEAN :	0.185	0.133	0.029	0.030	0.055	0.317	0.0628

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY PRECIPITATION #16

PERIOD OF REPORT : OCT 1.81 TO DEC 31.81

# OF SAMPLES	PRECIP. MM	CONDUCT. JMHO/CM	PH		TOTAL H+ TO PH8.3 MG/L	SULPHATE		NITRATE AS N MG/L
			FIELD	LAB		MG/L	MG/L	
:	25.0	18.0	3.00	23.00	17.0000	23.00	23.000	
MAXIMUM	:	26.5	5.16	5.52	0.0898	13.30	1.960	
MINIMUM	:	4.7	4.37	3.90	0.0388	0.10	0.005	
RANGE	:	21.8	0.79	1.62	0.0510	13.20	1.955	
ARITH. MFAN	:	13.8	4.72	4.62	0.0629	1.51	0.342	
ARITH. STD. DEV	:	7.5	0.40	0.42	0.0163	2.69	0.414	
GEOM. MEAN	:	11.8	4.71	4.61	0.0608	0.80	0.188	
GEOM. STD. DEV.	:	0.6	0.08	0.09	0.2662	1.05	1.285	
1ST QUARTILE	:	6.2	*****	4.25	0.0498	0.38	0.110	
2ND QUARTILE	:	13.0	*****	4.52	0.0588	0.80	0.205	
3RD QUARTILE	:	19.7	*****	5.00	0.0751	1.22	0.410	
VOL. WGT. MEAN	:	13.6	*****	*****	0.0629	0.87	0.298	

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY PRECIPITATION #16

PERIOD OF REPORT : OCT 1.81 TO DEC 31.81

PAGE : 2

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
# OF SAMPLES :	21.000	24.000	21.000	21.000	21.000	21.000	23.0000
MAXIMUM :	0.380	0.420	0.145	0.070	0.250	0.312	0.1259
MINIMUM :	0.005	0.005	0.002	0.005	0.005	0.001	0.0030
RANGE :	0.375	0.415	0.142	0.065	0.245	0.311	0.1229
ARITH. MEAN :	0.065	0.079	0.014	0.023	0.056	0.111	0.0347
ARITH. STD. DEV. :	0.080	0.111	0.031	0.017	0.066	0.099	0.0290
GEOM. MEAN :	0.038	0.038	0.006	0.017	0.031	0.054	0.0238
GEOM. STD. DEV. :	1.146	1.274	1.119	0.843	1.115	1.656	0.9623
1ST QUARTILE :	0.020	0.020	0.002	0.008	0.015	0.033	0.0098
2ND QUARTILE :	0.055	0.045	0.004	0.020	0.025	0.092	0.0254
3RD QUARTILE :	0.075	0.075	0.010	0.035	0.065	0.115	0.0497
VOL. WGT. MEAN :	0.070	0.040	0.012	0.021	0.051	0.109	0.0303

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWSP/DAILY PRECIPITATION #13

PERIOD OF REPORT : SEP 23.81 TO DEC 31.81

	PRECIP.		CONDUCT. JMHO/CM	PH		TOTAL H ₂ TO PH8.3 MG/L	SULPHATE		NITRATE AS N MG/L
	MM			FIELD	LAB		MG/L		
# OF SAMPLES :	44.0		20.0	10.00	36.00	18.0000	31.00		31.000
MAXIMUM :	18.9		74.5	5.20	5.98	0.0990	8.70		2.600
MINIMUM :	0.1		3.6	3.81	3.56	0.0334	0.10		0.005
RANGE :	18.8		70.9	1.39	2.42	0.0656	8.60		2.595
ARITH. MEAN :	3.3		20.3	4.49	4.49	0.0630	1.83		0.438
ARITH. STD. DEV :	4.8		18.3	0.44	0.46	0.0232	2.28		0.547
GEOM. MEAN :	1.2		15.0	4.47	4.47	0.0590	0.93		0.235
GEOM. STD. DEV. :	1.5		0.8	0.10	0.10	0.3772	1.25		1.290
1ST QUARTILE :	0.4		8.2	4.22	4.22	0.0415	0.40		0.130
2ND QUARTILE :	1.3		13.9	4.37	4.47	0.0564	0.97		0.210
3RD QUARTILE :	3.2		24.8	4.62	4.76	0.0857	1.90		0.545
VOL. WGT. MEAN :	*****		16.3	*****	*****	0.0620	1.54		0.264

PAGE : 1

**** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWP/DAILY PRECIPITATION #13

PERIOD OF REPORT : SEP 23.81 TO DEC 31.81

PAGE : 2

	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM	FREE H+
	MG/L	MG/L	MG/L	MG/L	MG/L	AS N	LAB
						MG/L	MG/L
# OF SAMPLES :	24.000	31.000	24.000	24.000	24.000	24.000	36.0000
MAXIMUM :	0.710	0.600	0.075	0.320	0.420	2.500	0.2754
MINIMUM :	0.010	0.005	0.002	0.005	0.005	0.004	0.0010
RANGE :	0.700	0.595	0.072	0.315	0.415	2.496	0.2744
ARITH. MEAN :	0.161	0.091	0.018	0.054	0.087	0.320	0.0509
ARITH. STD. DEV :	0.183	0.127	0.021	0.084	0.102	0.531	0.0547
GEOM. MEAN :	0.088	0.034	0.009	0.023	0.041	0.131	0.0322
GEOM. STD. DEV. :	1.160	1.575	1.229	1.299	1.368	1.525	1.0556
1ST QUARTILE :	0.035	0.005	0.002	0.008	0.010	0.074	0.0174
2ND QUARTILE :	0.085	0.045	0.008	0.020	0.050	0.152	0.0339
3RD QUARTILE :	0.220	0.130	0.030	0.055	0.130	0.265	0.0612
VOL. WGT. MEAN :	0.043	0.057	0.010	0.031	0.077	0.167	0.0376

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY PRECIPITATION #12

PERIOD OF REPORT : JAN 1.81 TO JAN 1.82

	PRECIP.		CONDUCT.	PH		TOTAL H ₂ TO PH8.3	SULPHATE		NITRATE AS N
	MM	MM	JMMO/CM	FIELD	LAB	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	141.0	80.0	58.00	113.00	83.0000	120.00	122.000	
MAXIMUM	:	38.0	88.5	6.05	6.82	0.2226	20.00	8.600	
MINIMUM	:	0.1	3.4	3.25	3.40	0.0236	0.02	0.005	
RANGE	:	37.9	85.1	2.80	3.42	0.1990	19.97	8.595	
ARITH. MEAN	:	7.3	31.3	4.31	4.39	0.0836	3.73	0.736	
ARITH. STD. DEV.	:	7.6	19.5	0.50	0.57	0.0445	2.95	0.884	
GEOM. MEAN	:	4.1	24.8	4.28	4.35	0.0731	2.63	0.452	
GEOM. STD. DEV.	:	1.2	0.7	0.11	0.12	0.5262	0.98	1.140	
1ST QUARTILE	:	2.1	15.3	3.98	4.03	0.0489	1.55	0.270	
2ND QUARTILE	:	4.8	25.6	4.30	4.27	0.0729	3.32	0.505	
3RD QUARTILE	:	9.6	43.6	4.55	4.53	0.1048	5.13	0.980	
VOL. WGT. MEAN	:	*****	28.4	*****	*****	0.0799	2.96	0.554	

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAMAM LAKE/DAILY PRECIPITATION #12
PERIOD OF REPORT : JAN 1.81 TO JAN 1.82

# OF SAMPLES	CALCIUM		CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM AS N		FREE N. LAB MG/L
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
MAXIMUM	96.000	119.000	86.000	102.000	99.000	109.000	1.530	0.3981	0.0002	0.3980	0.0677	0.0620	0.0411
MINIMUM	6.600	1.350	1.400	0.800	0.890	1.530	0.004	0.0002	0.3980	0.0677	0.0620	0.0411	1.3068
RANGE	0.005	0.020	0.002	0.005	0.005	0.004	1.526	0.002	0.3980	0.0677	0.0620	0.0411	0.0257
ARITH. MEAN	6.595	1.330	1.397	0.795	0.885	1.526	0.439	0.0677	0.0620	0.0411	1.3068	0.0257	0.0531
ARITH. STD. DEV.	0.496	0.276	0.087	0.142	0.183	0.362	0.275	1.183	0.161	0.370	0.595	0.0912	0.0589
GENM. MEAN	0.827	0.237	0.175	0.105	0.142	0.439	0.362	0.275	1.183	0.161	0.370	0.595	0.0912
GENM. STD. DEV.	0.230	0.191	0.031	0.035	0.080	0.275	1.183	0.161	0.370	0.595	0.0912	0.0589	0.0589
1ST QUANTILE	1.278	0.924	1.520	1.099	1.092	1.183	0.161	0.370	0.595	0.0912	0.0589	0.0589	0.0589
2ND QUANTILE	0.095	0.115	0.010	0.020	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
3RD QUANTILE	0.220	0.210	0.032	0.040	0.080	0.150	0.093	0.093	0.093	0.093	0.093	0.093	0.093
VOL. WGT. MEAN	0.605	0.360	0.082	0.070	0.150	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346
	0.342	0.188	0.057	0.044	0.093	0.346	0.346	0.346	0.346	0.346	0.346	0.346	0.346

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY PRECIPITATION #15

PERIOD OF REPORT : SEP 23.91 TO DEC 12.91

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH6.3 MG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
MAXIMUM	9.0	4.0	1.00	9.00	4.0000	7.00	7.000
MINIMUM	13.1	31.2	4.55	5.06	0.1070	7.60	0.850
RANGE	0.3	6.2	4.55	4.14	0.0356	0.35	0.070
ARITH. MEAN	12.8	25.0	0.00	0.92	0.0714	7.25	0.780
ARITH. STD. DEV	4.4	14.5	*****	4.47	0.0751	2.27	0.457
GEOM. MEAN	4.6	11.6	*****	0.31	0.0309	2.62	0.294
GEOM. STD. DEV.	2.3	15.4	*****	4.46	0.0695	1.28	0.349
1ST QUARTILE	1.3	0.7	*****	0.07	0.4843	1.18	0.900
2ND QUARTILE	0.8	8.9	*****	4.21	0.0516	0.35	0.120
3RD QUARTILE	1.6	18.2	*****	4.35	0.0790	0.88	0.410
VOL. WGT. MEAN	5.6	24.0	*****	4.53	0.0987	2.93	0.645
	*****	16.9	*****	*****	0.0697	1.31	0.433

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY PRECIPITATION #15

PERIOD OF REPORT : SEP 23-01 TO DEC 12-01

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H. LAC MG/L
# OF SAMPLES :	5.000	7.000	5.000	5.000	5.000	7.000	9.0000
MAXIMUM :	0.270	0.520	0.015	0.060	0.120	1.000	0.0724
MINIMUM :	0.020	0.020	0.002	0.010	0.010	0.050	0.0087
RANGE :	0.250	0.500	0.012	0.050	0.110	0.950	0.0637
ARITH. MFAN :	0.132	0.150	0.008	0.032	0.076	0.345	0.0409
ARITH. STD. DEV :	0.108	0.170	0.005	0.023	0.052	0.351	0.0221
GEOM. MEAN :	0.092	0.095	0.007	0.025	0.053	0.201	0.0340
GEOM. STD. DEV. :	1.053	1.035	0.708	0.860	1.100	1.183	0.7157
1ST QUARTILE :	0.040	0.030	0.004	0.010	0.020	0.055	0.0194
2ND QUARTILE :	0.075	0.090	0.008	0.020	0.070	0.146	0.0390
3RD QUARTILE :	0.155	0.145	0.010	0.040	0.110	0.505	0.0542
VOL. WGT. MEAN :	0.132	0.075	0.008	0.043	0.061	0.244	0.0336

PAGE : 2

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY PRECIPITATION #02

PERIOD OF REPORT : DEC 31.80 TO JAN 1.82

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES :	125.0	75.0	30.00	87.00	72.0000	110.00	110.000
MAXIMUM :	53.0	120.0	5.95	6.03	0.2900	23.00	5.600
MINIMUM :	0.1	3.9	3.53	3.23	0.0266	0.20	0.020
RANGE :	52.9	116.1	2.42	2.80	0.2634	22.80	5.580
ARITH. MEAN :	7.3	34.1	4.35	4.33	0.0843	4.25	0.802
ARITH. STD. DEV :	8.3	23.6	0.53	0.52	0.0503	3.49	0.767
GEOM. MEAN :	3.8	27.3	4.32	4.30	0.0722	3.06	0.540
GEOM. STD. DEV. :	1.3	0.7	0.11	0.12	0.5608	0.87	0.981
1ST QUARTILE :	1.6	17.7	4.01	4.02	0.0454	1.95	0.305
2ND QUARTILE :	4.1	27.5	4.16	4.26	0.0754	3.07	0.585
3RD QUARTILE :	9.4	42.8	4.52	4.53	0.1144	5.40	1.035
VOL. WGT. MEAN :	*****	32.3	*****	*****	0.0884	3.56	0.565

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY PRECIPITATION #02

PERIOD OF REPORT : DEC 31,80 TO JAN 1,82

PAGE : 2

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
# OF SAMPLES :	81.000	104.000	86.000	97.000	97.000	100.000	87.0000
MAXIMUM :	3.400	2.350	0.550	1.060	2.100	4.400	0.5888
MINIMUM :	0.030	0.005	0.002	0.005	0.005	0.036	0.0009
RANGE :	3.370	2.345	0.548	1.055	2.095	4.364	0.5879
ARITH. MEAN :	0.537	0.325	0.094	0.084	0.170	0.556	0.0799
ARITH. STD. DEV :	0.596	0.370	0.098	0.142	0.253	0.553	0.0903
GEOM. MEAN :	0.344	0.201	0.057	0.048	0.095	0.383	0.0466
GEOM. STD. DEV. :	0.954	1.071	1.129	0.977	1.086	0.913	1.1919
1ST QUARTILE :	0.205	0.120	0.027	0.025	0.050	0.223	0.0282
2ND QUARTILE :	0.345	0.220	0.062	0.040	0.090	0.405	0.0531
3RD QUARTILE :	0.620	0.360	0.127	0.090	0.195	0.725	0.0933
VOL. WGT. MEAN :	0.401	0.195	0.062	0.048	0.097	0.440	0.0640

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY PRECIPITATION #01

PERIOD OF REPORT : JAN 3-91 TO JAN 1-92

	PRECIP. MM	CONDUCT. JMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES :	120.0	65.0	33.00	99.00	64.0000	101.00	101.000
MAXIMUM :	45.2	90.0	5.85	5.98	0.2234	30.00	5.400
MINIMUM :	0.1	3.9	3.77	3.08	0.0228	0.45	0.005
RANGE :	45.1	86.1	2.08	2.90	0.2006	29.55	5.395
ARITH. MFAN :	6.7	33.3	4.42	4.23	0.0940	4.75	0.880
ARITH. STD. DEV :	7.6	17.7	0.52	0.48	0.0408	4.23	0.876
GEOM. MEAN :	3.7	27.9	4.39	4.21	0.0851	3.53	0.583
GEOM. STD. DEV. :	1.2	0.7	0.11	0.11	0.4657	0.79	1.034
1ST QUARTILE :	1.6	19.7	4.08	3.98	0.0646	2.20	0.385
2ND QUARTILE :	3.9	31.7	4.22	4.18	0.0916	3.75	0.615
3RD QUARTILE :	8.8	44.8	4.63	4.41	0.1141	5.80	1.070
VOL. WGT. MEAN :	*****	29.9	*****	*****	0.0899	3.34	0.545

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
ACIDS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY PRECIPITATION #01

PERIOD OF REPORT : JAN 3.81 TO JAN 1.82

PAGE : 2

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
# OF SAMPLES :	83.000	100.000	85.000	86.000	79.000	84.000	99.0000
MAXIMUM :	2.700	2.100	0.565	0.920	0.790	1.890	0.8318
MINIMUM :	0.040	0.005	0.002	0.005	0.010	0.034	0.0010
RANGE :	2.660	2.095	0.563	0.915	0.780	1.856	0.8307
ARITH. MEAN :	0.424	0.370	0.083	0.077	0.159	0.562	0.0944
ARITH. STD. DEV :	0.508	0.368	0.107	0.114	0.137	0.431	0.1110
GENM. MEAN :	0.254	0.232	0.040	0.043	0.110	0.418	0.0588
GENM. STD. DEV. :	1.006	1.135	1.346	1.063	0.906	0.818	1.1018
1ST QUANTILE :	0.125	0.140	0.020	0.020	0.060	0.220	0.0376
2ND QUANTILE :	0.225	0.265	0.040	0.040	0.120	0.450	0.0631
3RD QUANTILE :	0.490	0.480	0.095	0.090	0.240	0.720	0.1023
VOL. WGT. MEAN :	0.272	0.197	0.049	0.062	0.110	0.445	0.0669

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITMGROVE/DAILY PRECIPITATION #07

PERIOD OF REPORT : JAN 26.81 TO JAN 1.82

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH9.3 UG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES :	128.0	80.0	59.00	115.00	79.0000	118.00	118.000
MAXIMUM :	40.6	129.5	5.63	6.57	0.3114	13.20	3.500
MINIMUM :	0.2	7.2	3.50	3.47	0.0228	0.20	0.005
RANGE :	40.4	122.3	2.13	3.10	0.2886	13.00	3.495
ARITH. MFAN :	6.9	34.5	4.22	4.37	0.0979	3.39	0.663
ARITH. STD. DEV :	8.0	24.7	0.37	0.49	0.0570	2.60	0.630
GEOM. MEAN :	3.7	27.7	4.21	4.35	0.0846	2.54	0.439
GEOM. STD. DEV. :	1.2	0.7	0.09	0.11	0.5406	0.80	1.019
1ST QUARTILE :	1.6	15.8	3.98	4.05	0.0573	1.42	0.250
2ND QUARTILE :	4.0	27.3	4.18	4.30	0.0833	2.85	0.475
3RD QUARTILE :	8.9	43.1	4.44	4.61	0.1241	4.18	0.745
VOL. WGT. MEAN :	*****	30.6	*****	*****	0.0911	3.05	0.455

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NIT-GROVE/DAILY PRECIPITATION #07

PERIOD OF REPORT : JAN 26.81 TO JAN 1.82

PAGE : 2

	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM	FREE H ⁺
	MG/L	MG/L	MG/L	MG/L	MG/L	AS N	LAB
# OF SAMPLES	:	93.000	117.000	88.000	97.000	92.000	115.0000
MAXIMUM	:	3.800	1.800	0.320	1.170	1.800	0.3388
MINIMUM	:	0.020	0.005	0.005	0.010	0.001	0.0003
RANGE	:	3.780	1.795	0.315	1.160	1.799	0.3386
ARITH. MEAN	:	0.374	0.241	0.064	0.103	0.445	0.0667
ARITH. STD. DEV.	:	0.502	0.270	0.057	0.151	0.400	0.0608
GEOM. MEAN	:	0.212	0.146	0.045	0.062	0.271	0.0426
GEOM. STD. DEV.	:	1.100	1.116	1.252	0.871	1.213	1.1325
1ST QUARTILE	:	0.100	0.080	0.030	0.030	0.128	0.0243
2ND QUARTILE	:	0.200	0.170	0.050	0.060	0.331	0.0501
3RD QUARTILE	:	0.460	0.285	0.072	0.105	0.670	0.0851
VOL. WGT. MEAN	:	0.238	0.141	0.041	0.065	0.357	0.0594

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY PRECIPITATION #03

PERIOD OF REPORT : JAN 1.41 TO JAN 1.82

	PRECIP. MM	CONDUCT, JMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 MG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES	: 185.0	74.0	34.00	114.00	71.0000	140.00	143.000
MAXIMUM	: 60.5	137.0	6.99	6.80	0.3396	28.50	6.000
MINIMUM	: 0.0	5.6	3.78	3.44	0.0220	0.20	0.005
RANGE	: 60.5	131.4	3.21	3.36	0.3176	28.30	5.995
ARITH. MEAN	: 5.0	39.2	4.42	4.34	0.0922	4.70	0.833
ARITH. STD. DEV.	: 7.8	28.5	0.60	0.55	0.0631	4.29	0.862
GEOM. MEAN	: 1.8	30.8	4.39	4.31	0.0777	3.17	0.514
GEOM. STD. DEV.	: 1.6	0.7	0.12	0.12	0.5636	0.94	1.139
1ST QUARTILE	: 0.6	19.1	4.15	3.97	0.0572	1.75	0.280
2ND QUARTILE	: 1.8	28.1	4.30	4.31	0.0713	3.05	0.600
3RD QUARTILE	: 6.2	49.1	4.47	4.55	0.0942	6.85	1.160
VOL. WGT. MEAN	: *****	36.9	*****	*****	0.0966	3.79	0.503

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY PRECIPITATION #03

PERIOD OF REPORT : JAN 1-81 TO JAN 1-82

PAGE : 2

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H- LAB MG/L
# OF SAMPLES :	88.000	142.000	90.000	98.000	101.000	105.000	114.0000
MAXIMUM :	1.410	6.300	0.275	0.380	0.970	4.350	0.3631
MINIMUM :	0.030	0.005	0.002	0.005	0.005	0.001	0.0002
RANGE :	1.380	6.295	0.272	0.375	0.965	4.349	0.3629
ARITH. MEAN :	0.388	0.417	0.076	0.054	0.125	0.648	0.0759
ARITH. STD. DEV :	0.337	0.664	0.069	0.061	0.167	0.672	0.0705
GEOM. MEAN :	0.254	0.217	0.045	0.034	0.069	0.402	0.0453
GEOM. STD. DEV. :	0.997	1.241	1.169	0.990	1.081	1.249	1.2669
1ST QUARTILE :	0.130	0.120	0.022	0.020	0.030	0.268	0.0275
2ND QUARTILE :	0.270	0.240	0.052	0.040	0.070	0.495	0.0495
3RD QUARTILE :	0.575	0.440	0.115	0.065	0.140	0.780	0.1072
VOL. WGT. MEAN :	0.277	0.198	0.053	0.034	0.071	0.424	0.0683

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY PRECIPITATION #10

PERIOD OF REPORT : JAN 6.81 TO JAN 1.82

	PRECIP.		CONDUCT. JMHO/CM	PH		TOTAL H+ TO PH8.3 MG/L	SULPHATE		NITRATE AS N MG/L
	MM			FIELD	LAB		MG/L		
# OF SAMPLES	:	117.0	66.0	49.00	99.00	66.0000	103.00	103.000	
MAXIMUM	:	55.0	84.0	4.84	6.76	0.3068	22.00	6.000	
MINIMUM	:	0.2	4.7	3.18	3.32	0.0244	0.35	0.050	
RANGE	:	54.8	79.3	1.66	3.44	0.2824	21.65	5.950	
ARITH. MFAN	:	8.5	34.3	4.04	4.28	0.0965	4.21	0.791	
ARITH. STD. DEV	:	10.5	16.2	0.40	0.53	0.0498	3.35	0.754	
GEOM. MEAN	:	4.0	29.8	4.03	4.25	0.0854	3.13	0.564	
GEOM. STD. DEV.	:	1.3	0.6	0.10	0.11	0.5086	0.83	0.858	
1ST QUARTILE	:	1.7	22.1	3.79	3.95	0.0581	2.17	0.325	
2ND QUARTILE	:	4.0	34.0	4.11	4.17	0.0881	3.50	0.615	
3RD QUARTILE	:	12.1	46.1	4.34	4.46	0.1196	5.07	1.030	
VOL. WGT. MEAN	:	*****	29.3	*****	*****	0.0831	3.10	0.502	

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY PRECIPITATION #10
PERIOD OF REPORT : JAN 6.81 TO JAN 1.82

# OF SAMPLES	CALCIUM		CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM AS N		FREE H ₂ SO ₄ LAB MG/L
		MG/L		MG/L		MG/L		MG/L		MG/L		MG/L	
MAXIMUM	:	60.000		101.000		80.000		87.000		79.000		90.000	99.0000
MINIMUM	:	5.800		2.100		0.640		0.240		0.890		1.830	0.4786
RANGE	:	0.020		0.020		0.002		0.005		0.005		0.006	0.0002
ARITH. MEAN	:	5.780		2.080		0.637		0.235		0.885		1.824	0.4785
ARITH. STD. DEV.	:	0.552		0.364		0.070		0.058		0.186		0.484	0.0834
GEOM. MEAN	:	0.766		0.330		0.094		0.047		0.188		0.391	0.0725
GEOM. STD. DEV.	:	0.293		0.256		0.033		0.041		0.113		0.340	0.0530
1ST QUANTILE	:	1.168		0.883		1.358		0.896		1.099		0.948	1.2287
2ND QUANTILE	:	0.120		0.145		0.015		0.025		0.055		0.194	0.0339
3RD QUANTILE	:	0.310		0.265		0.035		0.040		0.120		0.380	0.0631
VOL. WGT. MEAN	:	0.735		0.475		0.098		0.080		0.250		0.690	0.1096
	:	0.331		0.205		0.043		0.041		0.111		0.365	0.0580

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
AP103 - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : HAVEN LAKE/DAILY PRECIPITATION #05

PERIOD OF REPORT : FEB 1.01 TO JAN 1.02

PAGE : 1

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL NO. TO PH8.3 MG/L	SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES	122.0	71.0	56.00	104.00	65.0000	112.00	110.000
MAXIMUM	37.2	84.5	6.20	6.60	0.2224	15.50	2.900
MINIMUM	0.2	5.3	3.63	3.52	0.0226	0.25	0.040
RANGE	37.0	79.2	2.57	3.08	0.1998	15.25	2.860
ARITH. MEAN	6.5	32.6	4.23	4.33	0.0910	3.80	0.668
ARITH. STD. DEV	7.1	18.8	0.37	0.52	0.0462	2.96	0.549
GEOM. MEAN	3.6	27.5	4.21	4.30	0.0799	2.82	0.479
GEOM. STD. DEV.	1.2	0.6	0.08	0.11	0.5318	0.83	0.878
1ST QUARTILE	1.6	19.3	4.04	4.02	0.0571	1.72	0.275
2ND QUARTILE	3.6	28.8	4.18	4.26	0.0809	3.27	0.520
3RD QUARTILE	9.0	40.3	4.35	4.45	0.1102	5.00	0.820
VOL. WGT. MEAN	*****	31.3	*****	*****	0.0929	3.27	0.494

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY PRECIPITATION #05

PERIOD OF REPORT : FEB 1991 TO JAN 1992

	CALCIUM		CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM AS N		FREE H. LAB	
	MG/L		MG/L		MG/L		MG/L		MG/L		MG/L		MG/L	
# OF SAMPLES :	80.000		103.000		85.000		88.000		84.000		92.000		104.0000	
MAXIMUM :	3.200		2.200		0.525		0.270		1.800		1.820		0.3020	
MINIMUM :	0.020		0.005		0.002		0.005		0.010		0.002		0.0003	
RANGE :	3.180		2.195		0.522		0.265		1.790		1.818		0.3017	
ARITH. MEAN :	0.453		0.318		0.058		0.044		0.170		0.442		0.0722	
ARITH. STD. DEV :	0.606		0.324		0.079		0.048		0.241		0.384		0.0614	
GEOM. MEAN :	0.221		0.209		0.025		0.027		0.101		0.267		0.0471	
GEOM. STD. DEV. :	1.257		0.989		1.412		0.978		1.006		1.258		1.2088	
1ST QUARTILE :	0.045		0.120		0.010		0.010		0.060		0.141		0.0355	
2ND QUARTILE :	0.225		0.200		0.025		0.030		0.100		0.323		0.0544	
3RD QUARTILE :	0.600		0.400		0.085		0.050		0.185		0.665		0.0944	
VOL. WGT. MEAN :	0.266		0.191		0.036		0.029		0.106		0.365		0.0620	

PAGE : 2

**** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
API05 - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY PRECIPITATION #14

PERIOD OF REPORT : OCT 16.81 TO DEC 31.81

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH0.3 MG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES	29.0	15.0	4.00	26.00	10.0000	25.00	25.000
MAXIMUM	12.0	119.0	5.00	5.18	0.0976	14.00	3.570
MINIMUM	0.1	6.1	4.35	3.82	0.0450	0.15	0.000
RANGE	11.9	112.9	0.65	1.36	0.0526	13.85	3.490
ARITH. MEAN	2.4	22.9	4.70	4.63	0.0655	1.40	0.510
ARITH. STD. DEV	2.8	27.6	0.31	0.33	0.0179	2.70	0.684
GEOM. MEAN	1.4	16.6	4.69	4.62	0.0634	0.73	0.339
GEOM. STD. DEV.	1.1	0.7	0.07	0.07	0.2668	1.03	0.943
1ST QUARTILE	0.7	9.8	4.44	4.33	0.0488	0.30	0.215
2ND QUARTILE	1.1	14.1	4.73	4.65	0.0611	0.75	0.310
3RD QUARTILE	3.4	22.8	4.96	4.85	0.0770	1.55	0.545
VOL. WGT. MEAN	*****	16.6	*****	*****	0.0638	0.87	0.427

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY PRECIPITATION #14

PERIOD OF REPORT : OCT 16.81 TO DEC 31.81

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE N. LAB MG/L
# OF SAMPLES	14.000	25.000	19.000	19.000	19.000	15.000	26.0000
MAXIMUM	1.450	0.320	0.155	0.180	0.250	0.910	0.1514
MINIMUM	0.005	0.005	0.002	0.005	0.010	0.006	0.0066
RANGE	1.445	0.315	0.152	0.175	0.240	0.904	0.1447
ARITH. MEAN	0.171	0.108	0.015	0.036	0.065	0.274	0.0315
ARITH. STD. DEV.	0.323	0.080	0.035	0.048	0.067	0.224	0.0297
GEOM. MEAN	0.076	0.076	0.006	0.021	0.041	0.167	0.0234
GEOM. STD. DEV.	1.249	1.029	1.167	0.979	0.992	1.339	0.7619
1ST QUANTILE	0.035	0.040	0.002	0.010	0.020	0.098	0.0129
2ND QUANTILE	0.055	0.085	0.002	0.020	0.035	0.254	0.0224
3RD QUANTILE	0.165	0.140	0.010	0.030	0.085	0.327	0.0403
VOL. WGT. MEAN	0.097	0.062	0.009	0.020	0.039	0.230	0.0303

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIJS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : ELLESLLEY/DAILY PRECIPITATION #04

PERIOD OF REPORT : JAN 27.81 TO JAN 1.82

PAGE : 1

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 UG/L	SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES	124.0	62.0	31.00	90.00	62.0000	108.00	110.000
MAXIMUM	57.2	124.0	5.66	6.35	0.3092	17.00	3.000
MINIMUM	0.1	4.8	3.79	3.56	0.0270	0.20	0.010
RANGE	57.1	119.2	1.87	2.79	0.2822	16.80	2.990
ARITH. MEAN	6.6	36.8	4.34	4.32	0.0949	4.56	0.822
ARITH. STD. DEV	9.1	25.5	0.37	0.44	0.0581	3.28	0.612
GEOM. MEAN	2.9	30.0	4.33	4.30	0.0810	3.49	0.611
GEOM. STD. DEV.	1.4	0.7	0.08	0.10	0.5358	0.79	0.868
1ST QUARTILE	1.0	20.3	4.10	4.04	0.0540	2.15	0.365
2ND QUARTILE	3.2	27.6	4.27	4.24	0.0807	3.63	0.700
3RD QUARTILE	8.2	44.5	4.55	4.46	0.1063	6.22	1.065
VOL. TOT. MEAN	*****	31.9	*****	*****	0.0907	3.37	0.463

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIJS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY PRECIPITATION #04
PERIOD OF REPORT : JAN 27.81 TO JAN 1.82

	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
# OF SAMPLES :	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
MAXIMUM :	78.000	105.000	74.000	83.000	84.000	83.000	90.0000
MINIMUM :	1.710	2.050	0.365	0.240	0.630	5.650	0.2754
RANGE :	0.030	0.005	0.002	0.005	0.005	0.046	0.0004
ARITH. MEAN :	1.680	2.045	0.363	0.235	0.625	5.604	0.2750
ARITH. STD. DEV. :	0.397	0.317	0.091	0.034	0.103	0.690	0.0689
GEOM. MEAN :	0.367	0.344	0.085	0.040	0.127	0.747	0.0552
GEOM. STD. DEV. :	0.245	0.170	0.043	0.024	0.053	0.483	0.0483
1ST QUANTILE :	1.051	1.319	1.245	0.923	1.207	0.856	1.0116
2ND QUANTILE :	0.045	0.100	0.020	0.010	0.020	0.289	0.0331
3RD QUANTILE :	0.250	0.200	0.042	0.020	0.050	0.520	0.0569
VOL. WGT. MEAN :	0.610	0.325	0.120	0.040	0.120	0.820	0.0891
	0.248	0.138	0.052	0.022	0.051	0.413	0.0639

PAGE : 2

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITMAN CREEK/DAILY PRECIPITATION #09

PERIOD OF REPORT : JAN 6.01 TO JAN 1.02

	PRECIP.		CONDUCT.	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 UG/L	SULPHATE		NITRATE AS N MG/L
	MM	CM	JMMO/CM				MG/L	MG/L	
# OF SAMPLES	: 110.0		67.0	56.00	91.00	63.0000	86.00	90.000	
MAXIMUM	: 51.0		156.0	5.03	6.65	0.2870	17.20	5.600	
MINIMUM	: 0.1		7.2	3.14	3.62	0.0244	0.35	0.100	
RANGE	: 50.9		148.8	1.89	3.03	0.2626	16.85	5.500	
ARITH. MEAN	: 8.9		37.3	4.08	4.33	0.0964	4.13	0.807	
ARITH. STD. DEV	: 10.9		25.7	0.41	0.50	0.0449	2.99	0.807	
GEOM. MEAN	: 4.2		30.5	4.06	4.30	0.0872	3.20	0.572	
GEOM. STD. DEV.	: 1.3		0.7	0.10	0.10	0.4591	0.76	0.819	
1ST QUARTILE	: 1.4		19.5	3.81	4.02	0.0652	2.13	0.320	
2ND QUARTILE	: 4.8		32.1	4.17	4.26	0.0905	3.40	0.540	
3RD QUARTILE	: 12.2		44.6	4.34	4.52	0.1182	5.35	1.045	
VOL. WGT. MEAN	: *****		32.6	*****	*****	0.0960	3.59	0.510	

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITMAN CREEK/DAILY PRECIPITATION #09

PERIOD OF REPORT : JAN 6.81 TO JAN 1.82

PAGE : 2

	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM	FREE N.
	MG/L	MG/L	MG/L	MG/L	MG/L	AS N	LAB
						MG/L	MG/L
# OF SAMPLES	74.000	82.000	71.000	80.000	73.000	86.000	91.0000
MAXIMUM	4.600	2.200	0.695	0.560	0.820	2.400	0.2399
MINIMUM	0.010	0.005	0.002	0.005	0.010	0.001	0.0002
RANGE	4.590	2.195	0.692	0.555	0.810	2.399	0.2397
ARITH. MEAN	0.522	0.273	0.076	0.073	0.120	0.503	0.0689
ARITH. STD. DEV.	0.787	0.312	0.113	0.107	0.151	0.463	0.0505
GEOM. MEAN	0.245	0.187	0.034	0.037	0.069	0.320	0.0470
GEOM. STD. DEV.	1.280	0.875	1.335	1.142	1.053	1.156	1.1459
1ST QUANTILE	0.110	0.110	0.010	0.020	0.030	0.184	0.0302
2ND QUANTILE	0.265	0.170	0.032	0.040	0.075	0.385	0.0543
3RD QUANTILE	0.590	0.300	0.085	0.080	0.140	0.580	0.0933
VOL. WGT. MEAN	0.309	0.208	0.052	0.040	0.093	0.354	0.0640

***** : INSUFFICIENT DATA OR NOT APPLICABLE

PART VI

SUMMARY STATISTICS OF OBSERVED CONCENTRATION BY REGION



ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1.81 TO JAN 1.82

PAGE : 1

	PRECIP. MM	CONDUCT. JMMH/CM	PH FIELD	PH LAB	TOTAL H+ TO PH8.3 UG/L	SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES	: 510.0	305.0	234.00	455.00	297.0000	461.00	462.000
MAXIMUM	: 48.2	195.0	6.23	6.60	0.5116	19.90	3.500
MINIMUM	: 0.1	5.2	3.24	3.37	0.0226	0.02	0.005
RANGE	: 48.1	189.8	2.99	3.23	0.4890	19.87	3.495
ARITH. MFAN	: 6.6	33.5	4.21	4.33	0.0961	3.50	0.651
ARITH. STD. DEV	: 7.4	23.7	0.36	0.48	0.0562	2.95	0.573
GEOM. MEAN	: 3.5	27.2	4.20	4.31	0.0841	2.46	0.444
GEOM. STD. DEV.	: 1.2	0.7	0.08	0.10	0.5103	0.92	0.969
1ST QUARTILE	: 1.6	17.8	4.02	4.05	0.0592	1.47	0.260
2ND QUARTILE	: 3.8	27.1	4.18	4.29	0.0831	2.67	0.500
3RD QUARTILE	: 8.0	41.7	4.36	4.52	0.1164	4.52	0.810
VOL. WGT. MEAN	: *****	30.6	*****	*****	0.0929	3.09	0.471

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1,81 TO JAN 1,82

# OF SAMPLES	CALCIUM		CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM		FREE H+ LAB MG/L
	MG/L		MG/L		MG/L		MG/L		MG/L		AS N MG/L		
:	366.000	:	454.000	:	374.000	:	383.000	:	383.000	:	386.000	:	455.0000
MAXIMUM	3.800	:	2.200	:	0.575	:	0.700	:	1.800	:	2.150	:	0.4266
MINIMUM	0.005	:	0.005	:	0.002	:	0.005	:	0.005	:	0.001	:	0.0003
RANGE	3.795	:	2.195	:	0.572	:	0.695	:	1.795	:	2.149	:	0.4263
ARITH. MFAN	0.350	:	0.240	:	0.051	:	0.045	:	0.111	:	0.416	:	0.0702
ARITH. STD. DEV	0.486	:	0.276	:	0.075	:	0.068	:	0.183	:	0.389	:	0.0628
GEOM. MEAN	0.165	:	0.139	:	0.021	:	0.025	:	0.055	:	0.230	:	0.0463
GEOM. STD. DEV.	1.280	:	1.176	:	1.407	:	1.073	:	1.178	:	1.374	:	1.0968
1ST QUARTILE	0.070	:	0.080	:	0.005	:	0.010	:	0.030	:	0.121	:	0.0302
2ND QUARTILE	0.160	:	0.160	:	0.020	:	0.030	:	0.060	:	0.308	:	0.0513
3RD QUARTILE	0.455	:	0.300	:	0.070	:	0.050	:	0.120	:	0.630	:	0.0891
VOL. WGT. MEAN	0.231	:	0.159	:	0.034	:	0.035	:	0.072	:	0.339	:	0.0611

PAGE : 2

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : SEP 23+81 TO DEC 31+81

		PRECIP.		CONDUCT.	PH	PH	TOTAL H ₂		SULPHATE		NITRATE	
		MM		UMHO/CM	FIELD	LAB	TO PH8.3		MG/L		AS N	
											MG/L	
# OF SAMPLES	:	107.0		57.0	18.00	94.00	49.0000		86.00		86.000	
MAXIMUM	:	18.9		119.0	5.20	5.98	0.1070		14.00		3.570	
MINIMUM	:	0.1		3.6	3.81	3.56	0.0334		0.10		0.005	
RANGE	:	18.8		115.4	1.39	2.42	0.0736		13.90		3.565	
ARITH. MFAN	:	3.5		18.8	4.58	4.56	0.0645		1.66		0.435	
ARITH. STD. DEV	:	4.2		18.5	0.39	0.40	0.0203		2.51		0.540	
GEOM. MEAN	:	1.6		14.3	4.56	4.54	0.0613		0.85		0.254	
GEOM. STD. DEV.	:	1.4		0.7	0.08	0.09	0.3227		1.12		1.154	
1ST QUARTILE	:	0.6		8.1	4.32	4.27	0.0498		0.38		0.130	
2ND QUARTILE	:	1.6		13.7	4.47	4.49	0.0611		0.85		0.270	
3RD QUARTILE	:	4.3		23.0	4.88	4.81	0.0814		1.75		0.545	
VOL. WGT. MEAN	:	*****		15.5	*****	*****	0.0635		1.17		0.326	

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : SEP 23,81 TO DEC 31,81

# OF SAMPLES	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	PAGE : 2	
						AMMONIUM AS N MG/L	FREE H ₂ LAB MG/L
:	69.000	87.000	69.000	69.000	69.000	67.000	94.0000
MAXIMUM	1.450	0.600	0.155	0.320	0.420	2.500	0.2754
MINIMUM	0.005	0.005	0.002	0.005	0.005	0.001	0.0010
RANGE	1.445	0.595	0.152	0.315	0.415	2.499	0.2744
ARITH. MEAN	0.133	0.097	0.015	0.038	0.071	0.247	0.0406
ARITH. STD. DEV	0.209	0.115	0.028	0.057	0.080	0.363	0.0410
GEOM. MEAN	0.066	0.048	0.007	0.021	0.039	0.110	0.0275
GEOM. STD. DEV.	1.207	1.350	1.142	1.046	1.164	1.548	0.9299
1ST QUARTILE	0.030	0.020	0.002	0.010	0.020	0.057	0.0150
2ND QUARTILE	0.060	0.060	0.005	0.020	0.035	0.146	0.0326
3RD QUARTILE	0.140	0.130	0.012	0.040	0.100	0.265	0.0519
VOL. WGT. MEAN	0.090	0.055	0.010	0.027	0.060	0.166	0.0334

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
API05 - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1.01 TO JAN 1.02

	PRECIP.		CONDUCT.	PH		TOTAL H ₂ TO PH0.3	PAGE 1 1	
	MM	MM	UMMO/CM	FIELD	LAB	MG/L	SULPHATE	MG/L
# OF SAMPLES	:	536.0	300.0	226.00	432.00	300.0000	438.00	445.000
MAXIMUM	:	55.0	156.0	6.05	6.82	0.3068	22.00	0.900
MINIMUM	:	0.0	1.2	3.09	3.32	0.0236	0.02	0.005
RANGE	:	55.0	152.8	2.96	3.50	0.2832	21.97	0.895
ARITH. MEAN	:	7.5	34.0	4.15	4.33	0.0929	3.94	0.772
ARITH. STD. DEV	:	9.1	20.6	0.46	0.52	0.0479	3.04	0.855
GEOM. MEAN	:	3.5	28.0	4.13	4.30	0.0818	2.08	0.512
GEOM. STD. DEV.	:	1.4	0.7	0.11	0.11	0.5119	0.88	0.977
1ST QUARTILE	:	1.4	18.4	3.89	4.00	0.0582	1.75	0.385
2ND QUARTILE	:	4.1	31.3	4.19	4.24	0.0831	3.42	0.540
3RD QUARTILE	:	9.9	45.8	4.40	4.52	0.1206	5.15	1.000
VOL. WGT. MEAN	:	*****	29.7	*****	*****	0.0865	3.08	0.505

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1.81 TO JAN 1.82

PAGE : 2

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE N. LAS MG/L
# OF SAMPLES :	355.000	430.000	341.000	378.000	356.000	405.000	432.0000
MAXIMUM :	6.600	2.300	1.400	0.800	0.990	2.400	0.4786
MINIMUM :	0.005	0.005	0.002	0.005	0.005	0.001	0.0002
RANGE :	6.595	2.295	1.397	0.795	0.985	2.399	0.4785
ARITH. MEAN :	0.472	0.289	0.075	0.058	0.145	0.457	0.0737
ARITH. STD. DEV. :	0.749	0.302	0.132	0.082	0.171	0.396	0.0629
GEOM. MEAN :	0.224	0.185	0.029	0.032	0.079	0.283	0.0472
GEOM. STD. DEV. :	1.248	1.038	1.440	1.068	1.175	1.230	1.1875
1ST QUARTILE :	0.095	0.110	0.010	0.012	0.030	0.166	0.0306
2ND QUARTILE :	0.220	0.200	0.030	0.040	0.080	0.370	0.0569
3RD QUARTILE :	0.525	0.365	0.075	0.070	0.190	0.600	0.1000
VOL. WGT. MEAN :	0.288	0.188	0.045	0.038	0.100	0.341	0.0595

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1.81 TO JAN 1.82

	PRECIP. MM	CONDUCT. JMMH/CM	PH FIELD	PH LAB	TOTAL MO TO PH8.3 MG/L	PAGE : 1	
						SULPHATE MG/L	NITRATE AS N MG/L
# OF SAMPLES :	559.0	276.0	128.00	390.00	269.0000	459.00	466.000
MAXIMUM :	60.5	137.0	6.99	6.80	0.3396	30.00	6.000
MINIMUM :	0.0	3.9	3.53	3.08	0.0220	0.20	0.005
RANGE :	60.5	133.1	3.46	3.72	0.3176	29.80	5.995
ARITH. MEAN :	6.3	35.9	4.39	4.31	0.0911	4.57	0.834
ARITH. STD. DEV :	8.2	24.2	0.51	0.50	0.0537	3.87	0.788
GEOM. MEAN :	2.8	29.0	4.36	4.28	0.0708	3.29	0.557
GEOM. STD. DEV. :	1.4	0.7	0.11	0.11	0.5352	0.86	1.018
1ST QUARTILE :	1.0	19.5	4.09	4.01	0.0562	1.95	0.345
2ND QUARTILE :	3.2	29.3	4.26	4.24	0.0778	3.38	0.620
3RD QUARTILE :	8.0	45.2	4.52	4.50	0.1093	6.20	1.080
VOL. WGT. MEAN :	*****	32.8	*****	*****	0.0914	3.52	0.525

***** : INSUFFICIENT DATA OR NOT APPLICABLE
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH / REVISED 23AUG83

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF OBSERVED CONCENTRATIONS
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1.81 TO JAN 1.82

PAGE : 2

	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L	FREE H+ LAB MG/L
# OF SAMPLES :	330.000	451.000	336.000	364.000	361.000	372.000	390.0000
MAXIMUM :	3.400	6.300	0.565	1.060	2.100	5.650	0.8310
MINIMUM :	0.030	0.005	0.002	0.005	0.095	0.001	0.0002
RANGE :	3.370	6.295	0.563	1.055	2.095	5.649	0.8316
ARITH. MEAN :	0.436	0.362	0.083	0.063	0.139	0.613	0.0799
ARITH. STD. DEV :	0.464	0.478	0.091	0.100	0.182	0.613	0.0845
GEOM. MEAN :	0.271	0.204	0.046	0.036	0.078	0.417	0.0494
GEOM. STD. DEV. :	1.007	1.201	1.225	1.021	1.108	0.989	1.1537
1ST QUARTILE :	0.130	0.115	0.025	0.020	0.040	0.260	0.0316
2ND QUARTILE :	0.275	0.230	0.050	0.035	0.080	0.480	0.0575
3RD QUARTILE :	0.590	0.450	0.120	0.070	0.175	0.760	0.0977
VOL. WGT. MEAN :	0.301	0.182	0.054	0.041	0.082	0.431	0.0658

**** : INSUFFICIENT DATA OR NOT APPLICABLE

PART VII

SUMMARY STATISTICS OF OBSERVED DEPOSITION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : HALSAM LAKE/DAILY PRECIPITATION #05

PERIOD OF REPORT : JAN 1. 81 TO JAN 1. 82

	PRECIP. MM	FREE H. FIELD MG/M ²	FREE H. LAB MG/M ²	TOTAL H. TO PH8.3 MG/M ²	SULPHATE MG/M ²	NITRATE AS N MG/M ²	CALCIUM MG/M ²
# OF SAMPLES	: 116.0	54.0000	104.0000	69.0000	99.00	101.000	41.000
MAXIMUM	: 31.2	3.5680	3.2540	4.0128	160.60	19.200	19.000
MINIMUM	: 0.2	0.0033	0.0006	0.0611	0.29	0.049	0.092
RANGE	: 31.0	3.5647	3.2535	3.9517	160.31	19.111	18.908
ARITH. MEAN	: 6.4	0.7478	0.4065	0.8334	20.56	3.196	1.884
ARITH. STD. DEV.	: 6.7	0.6947	0.5144	0.7142	24.74	3.203	2.959
GEOM. MEAN	: 3.5	0.4900	0.1720	0.5678	10.91	1.954	0.879
GEOM. STD. DEV.	: 1.2	1.1151	1.6672	0.9569	1.24	1.115	1.232
1ST QUARTILE	: 1.4	0.2908	0.0866	0.2811	5.05	1.101	0.351
2ND QUARTILE	: 3.4	0.5713	0.2635	0.6447	11.57	2.152	0.920
3RD QUARTILE	: 8.2	0.8844	0.5038	1.0950	27.33	4.296	1.498

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : HALLS LAKE/DAILY PRECIPITATION #06

PERIOD OF REPORT : JAN 1, 81 TO JAN 1, 82

PAGE : 2

	CHLORIDE MG/MEE2	MAGNESIUM MG/MEE2	POTASSIUM MG/MEE2	SODIUM MG/MEE2	AMMONIUM AS N MG/MEE2
# OF SAMPLES :	101.000	95.000	92.000	87.000	88.000
MAXIMUM :	27.040	2.900	10.570	2.700	13.420
MINIMUM :	0.006	0.003	0.006	0.011	0.019
RANGE :	27.034	2.897	10.564	2.689	13.401
ARITH. MEAN :	1.216	0.296	0.297	0.476	2.412
ARITH. STD. DEV. :	2.839	0.521	1.111	0.595	2.763
GEOM. MEAN :	0.506	0.103	0.097	0.237	1.166
GEOM. STD. DEV. :	1.379	1.504	1.315	1.225	1.440
1ST QUARTILE :	0.220	0.030	0.041	0.095	0.566
2ND QUARTILE :	0.565	0.105	0.098	0.211	1.452
3RD QUARTILE :	1.272	0.269	0.197	0.601	3.602

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APDS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY PRECIPITATION #11

PERIOD OF REPORT : JAN 25, 81 TO JAN 1, 82

	PRECIP. MM	FREE H. FIELD MG/HECT	FREE H. LAB MG/HECT	TOTAL H. TO PH9.3 MG/HECT	SULPHATE MG/HECT	NITRATE AS N MG/HECT	PAGE : 1	CALCIUM MG/HECT
# OF SAMPLES	: 169.0	64.0000	129.0000	96.0000	129.00	130.000		105.000
MAXIMUM	: 47.4	6.0382	2.9620	4.2038	147.90	19.162		6.000
MINIMUM	: 0.0	0.0154	0.0008	0.0360	0.24	0.012		0.049
RANGE	: 47.4	6.0225	2.9612	4.1678	147.66	19.150		7.949
ARITH. MEAN	: 6.0	1.1795	0.4253	0.8401	20.26	3.317		1.574
ARITH. STD. DEV.	: 7.7	1.2946	0.4983	0.7256	23.48	3.123		1.728
GEOM. MEAN	: 2.4	0.6298	0.1887	0.5492	10.50	1.913		0.927
GEOM. STD. DEV.	: 1.6	1.2904	1.5691	1.0744	1.29	1.289		1.080
1ST QUANTILE	: 0.8	0.3734	0.0888	0.2883	4.01	1.090		0.441
2ND QUANTILE	: 2.6	0.7201	0.2179	0.6441	11.49	2.468		0.905
3RD QUANTILE	: 6.1	1.3798	0.6142	1.2248	26.63	4.564		2.184

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
API'S - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY PRECIPITATION #11

PERIOD OF REPORT : JAN 25, 81 TO JAN 1, 82

PAGE : 2

	CHLORIDE MG/ML*2	MAGNESIUM MG/ML*2	POTASSIUM MG/ML*2	SODIUM MG/ML*2	AMMONIUM AS N MG/ML*2
# OF SAMPLES :	124.000	104.000	109.000	103.000	120.000
MAXIMUM :	11.620	1.806	2.724	7.000	19.834
MINIMUM :	0.010	0.003	0.006	0.002	0.002
RANGE :	11.610	1.803	2.718	6.998	19.834
ARITH. MEAN :	1.147	0.273	0.227	0.846	2.353
ARITH. STD. DEV. :	1.703	0.350	0.328	1.248	2.916
GEOM. MEAN :	0.538	0.131	0.120	0.339	1.046
GEOM. STD. DEV. :	1.372	1.310	1.154	1.448	1.672
1ST QUANTILE :	0.240	0.049	0.049	0.119	0.549
2ND QUANTILE :	0.706	0.124	0.120	0.244	1.400
3RD QUANTILE :	1.391	0.382	0.265	1.037	3.057

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY PRECIPITATION

MOR

PERIOD OF REPORT : JAN 1. 81 TO JAN 1.82

PAGE : 1

PRECIP.

FREE H+
FIELD
MG/M**2

FREE H+
LAB
MG/M**2

TOTAL H+
TO PH8.3
MG/M**2

SULPHATE
MG/M**2

NITRATE
AS N
MG/M**2

CALCIUM
MG/M**2

OF SAMPLES :

144.0

66.0000

132.0000

84.0000

132.00

133.000

112.000

MAXIMUM :

44.2

6.4475

3.9755

5.2070

185.76

20.000

18.090

MINIMUM :

0.1

0.0985

0.0064

0.0534

0.04

0.007

0.009

RANGE :

48.1

6.3490

3.9691

5.1536

185.72

19.992

18.080

ARITH. MEAN :

6.4

0.9642

0.4226

0.9206

21.19

3.229

1.451

ARITH. STD. DEV :

7.8

1.1393

0.6156

0.9503

31.63

3.630

2.503

GEOM. MEAN :

3.3

0.6116

0.1968

0.6029

8.74

1.687

0.532

GEOM. STD. DEV. :

1.3

0.9332

1.3351

0.9444

1.44

1.333

1.500

1ST QUARTILE :

1.6

0.3694

0.0767

0.3418

3.59

0.812

0.189

2ND QUARTILE :

3.4

0.5374

0.2290

0.6149

10.07

2.047

0.484

3RD QUARTILE :

7.3

1.0505

0.4742

1.0401

22.63

4.189

1.503

**** : INSUFFICIENT DATA

NOTE(1): PRFCIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY PRECIPITATION #09
PERIOD OF REPORT : JAN 1, 81 TO JAN 1, 82
PAGE : 2

CHLORIDE		MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N
	MG/MEET	MG/MEET	MG/MEET	MG/MEET	MG/MEET
# OF SAMPLES :	133.000	111.000	115.000	115.000	114.000
MAXIMUM :	12.031	3.819	5.900	12.939	18.252
MINIMUM :	0.012	0.002	0.003	0.015	0.000
RANGE :	12.019	3.817	5.897	12.924	18.252
ARITH. MEAN :	0.927	0.228	0.236	0.432	2.374
ARITH. STD. DEV. :	1.437	0.462	0.592	1.253	3.013
GEOM. MEAN :	0.444	0.074	0.090	0.176	0.834
GEOM. STD. DEV. :	1.250	1.564	1.391	1.198	1.994
1ST QUANTILE :	0.194	0.020	0.037	0.061	0.350
2ND QUANTILE :	0.444	0.067	0.087	0.158	1.367
3RD QUANTILE :	1.007	0.209	0.244	0.375	2.793

***** : INSUFFICIENT DATA.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY PRECIPITATION #16
PERIOD OF REPORT : OCT 1. 81 TO DEC 31.81

	PRECIP. MM	FREE H. FIELD MG/4**2	FREE H. LAB MG/4**2	TOTAL H. TO PH8.3 MG/4**2	SULPHATE MG/4**2	NITRATE AS N MG/4**2	CALCIUM MG/4**2
# OF SAMPLES :	25.0	3.0000	23.0000	17.0000	23.00	23.000	21.000
MAXIMUM :	14.0	0.2517	0.9250	1.2572	14.16	10.080	2.100
MINIMUM :	0.1	0.0408	0.0074	0.1156	0.15	0.004	0.006
RANGE :	13.9	0.2109	0.9176	1.1416	14.00	10.076	2.094
ARITH. MFAN :	4.7	0.1415	0.1362	0.3673	3.92	1.345	0.342
ARITH. STD. DEV :	4.1	0.1058	0.1988	0.2809	3.61	2.115	0.484
GEOM. MEAN :	2.7	0.1107	0.0656	0.2992	2.36	0.557	0.136
GEOM. STD. DEV. :	1.3	0.9222	1.2731	0.6276	1.20	1.700	1.582
1ST QUARTILE :	1.1	*****	0.0213	0.1886	0.98	0.336	0.047
2ND QUARTILE :	3.6	*****	0.0676	0.2196	3.02	0.775	0.190
3RD QUARTILE :	5.9	*****	0.1387	0.4800	4.62	1.047	0.380

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY PRECIPITATION #16

PERIOD OF REPORT : OCT 1. H1 10 DEC 31.81

PAGE : 2

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES :	24.000	21.000	21.000	21.000	21.000
MAXIMUM :	0.840	0.406	0.385	1.475	1.624
MINIMUM :	0.013	0.002	0.006	0.004	0.001
RANGE :	0.827	0.404	0.379	1.469	1.623
ARITH. MEAN :	0.172	0.059	0.104	0.251	0.536
ARITH. STD. DEV :	0.202	0.105	0.105	0.352	0.499
GEOM. MEAN :	0.098	0.022	0.062	0.112	0.195
GEOM. STD. DEV. :	1.091	1.381	1.104	1.385	2.194
1ST QUARTILE :	0.048	0.010	0.028	0.040	0.075
2ND QUARTILE :	0.074	0.015	0.059	0.099	0.417
3RD QUARTILE :	0.215	0.043	0.126	0.291	0.723

**** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : FORBES TWP./DAILY PRECIPITATION #13
PERIOD OF REPORT : SEP 23. 81 TO DEC 31.81

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES :	44.0	10.0000	36.0000	18.0000	31.00	31.000	24.000
MAXIMUM :	18.9	0.9693	1.0628	1.7615	45.36	3.780	1.500
MINIMUM :	0.1	0.0389	0.0010	0.0666	0.04	0.004	0.039
RANGE :	18.8	0.9304	1.0618	1.6949	45.32	3.776	1.461
ARITH. MEAN :	3.3	0.2994	0.1318	0.3894	6.19	1.066	0.468
ARITH. STD. DEV :	4.8	0.3056	0.2086	0.4163	9.83	1.026	0.467
GEOM. MEAN :	1.2	0.1926	0.0471	0.2650	1.91	0.482	0.268
GEOM. STD. DEV. :	1.5	1.0168	1.5669	0.8639	1.79	1.723	1.145
1ST QUARTILE :	0.4	0.0886	0.0161	0.1301	0.61	0.192	0.110
2ND QUARTILE :	1.3	0.2108	0.0372	0.2391	1.90	0.742	0.302
3RD QUARTILE :	3.2	0.2634	0.1751	0.4197	8.09	1.550	0.803

**** : INSUFFICIENT DATA
NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APDS - ACID PRECIPITATION IN ONTARIO STUDY

PAGE : 2

STATION NAME : FORBES TWP./DAILY PRECIPITATION #13

PERIOD OF REPORT : SEP 23. 81 TO DEC 31.81

	CHLORIDE MG/4**2	MAGNESIUM MG/4**2	POTASSIUM MG/4**2	SODIUM MG/4**2	AMMONIUM AS N MG/4**2
# OF SAMPLES :	31.000	24.000	24.000	24.000	24.000
MAXIMUM :	3.300	0.300	1.024	3.450	2.759
MINIMUM :	0.000	0.003	0.006	0.016	0.005
RANGE :	3.295	0.297	1.017	3.434	2.754
ARITH. MEAN :	0.231	0.052	0.154	0.390	0.815
ARITH. STD. DEV :	0.533	0.069	0.249	0.784	0.857
GEOM. MEAN :	0.070	0.026	0.070	0.125	0.349
GEOM. STD. DEV. :	1.478	1.190	1.236	1.421	1.667
1ST QUARTILE :	0.023	0.010	0.025	0.040	0.130
2ND QUARTILE :	0.060	0.023	0.075	0.102	0.486
3RD QUARTILE :	0.200	0.063	0.119	0.224	1.242

**** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : GRAHAM LAKE/DAILY PRECIPITATION #12
PERIOD OF REPORT : JAN 1. 81 TO JAN 1. 82

# OF SAMPLES	PRECIP. MM	FREE H+ FIELD MG/MEE2	FREE H+ LAB MG/MEE2	TOTAL H+ TO PH8.3 MG/MEE2	SULPHATE MG/MEE2	NITRATE AS N MG/MEE2	CALCIUM MG/MEE2
:	141.0	57.0000	111.0000	82.0000	118.00	120.000	95.000
MAXIMUM	34.0	4.4068	2.8088	3.9996	150.15	61.920	47.520
MINIMUM	0.1	0.0149	0.0003	0.0698	0.62	0.040	0.094
RANGE	37.9	4.3919	2.8085	3.9298	149.53	61.880	47.426
ARITH. MEAN	7.3	0.8620	0.4460	0.8418	22.98	4.458	3.130
ARITH. STD. DEV.	7.6	0.9797	0.5712	0.7907	25.83	6.689	5.457
GEOM. MEAN	4.1	0.4921	0.2044	0.5943	13.24	2.388	1.576
GEOM. STD. DEV.	1.2	1.1531	1.5463	0.8515	1.15	1.245	1.157
1ST QUARTILE	2.1	0.2598	0.1040	0.1709	6.52	1.343	0.635
2ND QUARTILE	4.8	0.4695	0.2346	0.6075	14.29	2.822	1.418
3RD QUARTILE	9.6	1.0814	0.5690	0.9340	29.36	5.223	3.397

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIUS - ACID PRECIPITATION IN ONTARIO STUDY

PAGE : 2

STATION NAME : GRAHAM LAKE/DAILY PRECIPITATION #12

PERIOD OF REPORT : JAN 1. 81 TO JAN 1. 82

	CHLORIDE MG/4002	MAGNESIUM MG/4002	POTASSIUM MG/4002	SODIUM MG/4002	AMMONIUM AS N MG/4002
# OF SAMPLES :	117.000	85.000	100.000	97.000	107.000
MAXIMUM :	9.860	10.080	9.000	7.106	16.830
MINIMUM :	0.048	0.008	0.017	0.049	0.004
RANGE :	9.812	10.071	7.983	7.057	16.826
ARITH. MEAN :	1.530	0.533	0.412	0.869	2.934
ARITH. STD. DEV. :	1.656	1.165	0.830	1.137	2.972
GEOM. MEAN :	0.985	0.220	0.236	0.536	1.546
GEOM. STD. DEV. :	0.972	1.318	0.990	0.949	1.435
1ST QUARTILE :	0.516	0.089	0.124	0.296	0.835
2ND QUARTILE :	1.054	0.186	0.232	0.510	2.191
3RD QUARTILE :	1.936	0.551	0.426	0.913	3.807

**** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY PRECIPITATION #13
PERIOD OF REPORT : SEP 23, 81 TO DEC 12, 81

# OF SAMPLES	PRECIP.	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ TO PH3.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
MAXIMUM	9.0	1.0000	9.0000	4.0000	7.00	7.000	5.000
MINIMUM	13.1	0.3692	0.6166	1.0700	23.50	8.500	2.700
RANGE	0.3	0.3692	0.0094	0.3887	0.44	0.108	0.057
ARITH. MEAN	12.8	0.0	0.6072	0.6813	23.06	8.392	2.643
ARITH. STD. DEV	4.4	*****	0.1476	0.5996	7.11	2.349	0.926
GEOM. MEAN	4.6	*****	0.1871	0.3160	7.62	2.918	1.065
GEOM. STD. DEV.	2.3	*****	0.0793	0.5504	4.29	1.170	0.438
1ST QUARTILE	1.3	*****	1.2456	0.4521	1.22	1.402	1.557
2ND QUARTILE	0.8	*****	0.0339	0.4275	1.45	0.314	0.099
3RD QUARTILE	1.6	*****	0.0758	0.4698	4.55	0.952	0.463
	5.6	*****	0.1410	0.7716	7.12	2.705	0.866

**** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : LAC LA CROIX/DAILY PRECIPITATION #15
PERIOD OF REPORT : SEP 23, 81 TO DEC 12, 81

PAGE : 2

	CHLORIDE MG/ME2	MAGNESIUM MG/ME2	POTASSIUM MG/ME2	SODIUM MG/ME2	AMMONIUM AS N MG/ME2
# OF SAMPLES :	7.000	5.000	5.000	5.000	7.000
MAXIMUM :	0.900	0.150	0.786	1.100	5.500
MINIMUM :	0.095	0.006	0.006	0.070	0.038
RANGE :	0.805	0.144	0.780	1.030	5.462
ARITH. MEAN :	0.405	0.056	0.298	0.430	1.301
ARITH. STD. DEV :	0.276	0.057	0.333	0.423	1.891
GEOM. MEAN :	0.319	0.034	0.118	0.256	0.577
GEOM. STD. DEV. :	0.793	1.220	1.905	1.242	1.518
1ST QUARTILE :	0.118	0.012	0.038	0.070	0.187
2ND QUARTILE :	0.326	0.030	0.100	0.231	0.612
3RD QUARTILE :	0.522	0.054	0.314	0.455	1.006

**** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
API05 - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY PRECIPITATION #02

PERIOD OF REPORT : DEC 31. 80 TO JAN 1.82

	PRECIP. MM	FREE H. FIELD MG/4002	FREE H. LAH MG/4002	TOTAL H. TO PH0.3 MG/4002	SULPHATE MG/4002	NITRATE AS N MG/4002	CALCIUM MG/4002
# OF SAMPLES	1	125.0	30.0000	87.0000	110.00	110.000	81.000
MAXIMUM	1	53.0	3.1936	3.3890	199.20	23.634	47.077
MINIMUM	1	0.1	0.0046	0.0039	0.28	0.031	0.285
RANGE	1	52.9	3.1890	3.3851	198.92	23.603	46.792
ARITH. MEAN	1	7.3	0.7954	0.5769	28.81	4.577	3.980
ARITH. STD. DEV	1	8.3	0.7924	0.6912	33.71	4.400	6.305
GEOM. MEAN	1	3.8	0.4048	0.2621	14.70	2.591	2.320
GEOM. STD. DEV.	1	1.3	1.5328	1.4884	1.31	1.274	0.970
1ST QUANTILE	1	1.8	0.2282	0.1156	6.12	1.173	1.142
2ND QUANTILE	1	4.1	0.5449	0.3155	15.77	3.478	2.256
3RD QUANTILE	1	9.4	1.0098	0.8080	37.94	5.909	3.958

PAGE : 1

***** : INSUFFICIENT DATA
NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY PRECIPITATION #02

PERIOD OF REPORT : DEC 31, 80 TO JAN 1, 82

	CALCIUM MG/4002	MAGNESIUM MG/4002	POTASSIUM MG/4002	SODIUM MG/4002	AMMONIUM AS N MG/4002
# OF SAMPLES :	104.000	84.000	97.000	97.000	100.000
MAXIMUM :	7.850	5.280	2.804	5.966	19.422
MINIMUM :	0.020	0.015	0.012	0.054	0.031
RANGE :	7.830	5.265	2.596	5.912	19.391
ARITH. MEAN :	1.651	0.570	0.429	0.458	3.843
ARITH. STD. DEV. :	1.345	0.720	0.428	0.914	4.138
GEOM. MEAN :	1.040	0.340	0.273	0.548	2.084
GEOM. STD. DEV. :	1.166	1.066	1.030	1.026	1.270
1ST QUANTILE :	0.664	0.155	0.127	0.246	0.925
2ND QUANTILE :	1.244	0.342	0.298	0.582	2.489
3RD QUANTILE :	2.157	0.639	0.537	1.129	4.818

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
API'S - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY PRECIPITATION #01
PERIOD OF REPORT : JAN 3. 81 TO JAN 1.82

	PRECIP. MM	FREE H+ FIELD MG/Mee2	FREE H+ LAB MG/Mee2	TOTAL H+ TO PH8.3 MG/Mee2	SULPHATE MG/Mee2	NITRATE AS N MG/Mee2	CALCIUM MG/Mee2
# OF SAMPLES	1	33.0000	99.0000	64.0000	101.00	101.000	83.000
MAXIMUM	45.2	2.2654	2.9491	3.9816	127.94	17.380	10.642
MINIMUM	0.1	0.0076	0.0087	0.0828	0.80	0.042	0.182
RANGE	45.1	2.2577	2.9404	3.8928	127.14	17.338	10.500
ARITH. MFAN	6.7	0.7317	0.4979	0.9890	25.89	4.233	2.441
ARITH. STD. DEV	7.6	0.6147	0.5274	0.7296	23.16	3.316	2.363
GENM. MEAN	3.7	0.3882	0.2567	0.7305	16.99	2.824	1.569
GENM. STD. DEV.	1.2	1.4721	1.3570	0.8608	1.02	1.041	0.941
1ST QUARTILE	1.6	0.1935	0.1055	0.4178	10.01	1.596	0.743
2ND QUARTILE	3.4	0.5438	0.3348	0.8532	17.73	3.014	1.545
3RD QUARTILE	8.8	1.0623	0.7094	1.4688	37.88	5.960	3.140

**** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY PRECIPITATION #01
PERIOD OF REPORT : JAN 3, 81 TO JAN 1, 82

PAGE : 2

		CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
		MG/M ³	MG/M ³	MG/M ³	MG/M ³	AS N MG/M ³
# OF SAMPLES	:	100.000	86.000	86.000	79.000	84.000
MAXIMUM	:	7.584	1.960	6.342	5.688	45.738
MINIMUM	:	0.027	0.013	0.027	0.058	0.190
RANGE	:	7.557	1.947	6.315	5.630	45.548
APTH. MEAN	:	1.531	0.432	0.533	0.998	4.004
APTH. STD. DEV.	:	1.235	0.441	1.060	0.980	5.395
GENM. MEAN	:	1.120	0.241	0.255	0.688	2.588
GENM. STD. DEV.	:	0.891	1.221	1.085	0.890	0.952
1ST QUARTILE	:	0.724	0.116	0.112	0.378	1.435
2ND QUARTILE	:	1.242	0.237	0.240	0.696	2.844
3RD QUARTILE	:	1.912	0.606	0.490	1.350	4.956

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY PRECIPITATION 407
PERIOD OF REPORT : JAN 26, 81 TO JAN 1, 82

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	:	58.0000	115.0000	79.0000	118.00	118.000	93.000
MAXIMUM	:	6.5173	4.7214	5.9710	197.75	21.700	18.626
MINIMUM	:	0.0054	0.0004	0.0502	0.29	0.008	0.090
RANGE	:	6.5119	4.7209	5.9208	197.47	21.692	18.536
ARITH. MEAN	:	0.9645	0.4349	0.9060	22.39	3.323	2.056
ARITH. STD. DEV	:	1.1727	0.6747	0.9966	31.32	3.466	2.822
GEOM. MEAN	:	0.5575	0.1809	0.5932	10.78	1.843	1.114
GEOM. STD. DEV.	:	1.1482	1.5589	0.9261	1.31	1.328	1.116
1ST QUARTILE	:	0.2852	0.0800	0.2921	4.43	1.194	0.497
2ND QUARTILE	:	0.5873	0.2300	0.6357	11.77	2.287	1.128
3RD QUARTILE	:	1.1633	0.4617	1.0668	24.83	4.524	2.070

PAGE : 1

**** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITROGROVE/DAILY PRECIPITATION
PERIOD OF REPORT : JAN 26, 81 TO JAN 1, 82

407

PAGE : 2

# OF SAMPLES	CHLORIDE MG/M ³ x 10 ²	MAGNESIUM MG/M ³ x 10 ²	POTASSIUM MG/M ³ x 10 ²	SODIUM MG/M ³ x 10 ²	AMMONIUM AS N MG/M ³ x 10 ²
:	117.000	92.000	84.000	97.000	92.000
MAXIMUM	5.920	3.886	1.742	3.948	14.600
MINIMUM	0.012	0.006	0.015	0.035	0.001
RANGE	5.908	3.879	1.727	3.913	14.599
ARITH. MEAN	1.045	0.305	0.352	0.555	2.962
ARITH. STD. DEV.	1.076	0.528	0.314	0.694	1.837
GEOM. MEAN	0.647	0.139	0.237	0.329	1.113
GEOM. STD. DEV.	1.149	1.268	0.968	1.009	1.539
1ST QUANTILE	0.337	0.051	0.133	0.160	0.685
2ND QUANTILE	0.741	0.151	0.300	0.315	1.435
3RD QUANTILE	1.380	0.337	0.455	0.608	3.347

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY PRECIPITATION #03

PERIOD OF REPORT : JAN 1, 61 TO JAN 1, 62

# OF SAMPLES	PRECIP. MM	FREE H ₂ O FIELD MG/MEET	FREE H ₂ O LAB MG/MEET	TOTAL H ₂ O TO PHB.1 MG/MEET	SULPHATE MG/MEET	NITRATE AS N MG/MEET	CALCIUM MG/MEET
MAXIMUM	145.0	34.0000	113.0000	71.0000	140.00	143.000	88.000
MINIMUM	60.5	2.6082	4.0545	5.2100	217.50	19.000	14.720
RANGE	0.0	0.0016	0.0001	0.0447	0.28	0.012	0.091
ARITH. MEAN	60.5	2.6066	4.0544	5.1653	217.22	18.998	14.429
ARITH. STD. DEV.	5.0	0.6809	0.4430	1.0642	23.54	3.155	2.537
GEOM. MEAN	7.8	0.5791	0.6798	1.0896	34.48	3.576	2.895
GEOM. STD. DEV.	1.8	0.3660	0.1488	0.6071	8.86	1.453	1.413
1ST QUARTILE	1.0	1.5529	1.9472	1.1894	1.57	1.507	1.148
2ND QUARTILE	0.6	0.3385	0.0520	0.2416	2.41	0.584	0.566
3RD QUARTILE	1.8	0.5507	0.2121	0.7760	11.53	1.986	1.567
	6.2	0.8143	0.5834	1.3945	29.56	4.263	3.175

**** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

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ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY PRECIPITATION #03
PERIOD OF REPORT : JAN 1. 61 TO JAN 1. 62

PAGE : 2

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES :	142.000	90.000	98.000	101.000	105.000
MAXIMUM :	16.920	3.200	1.326	11.200	31.460
MINIMUM :	0.020	0.020	0.009	0.020	0.004
RANGE :	16.900	3.180	1.317	11.180	31.456
ARITH. MEAN :	1.232	0.474	0.279	0.572	3.128
ARITH. STD. DEV. :	2.073	0.612	0.307	1.154	3.878
GEOM. MEAN :	0.628	0.248	0.159	0.326	1.573
GEOM. STD. DEV. :	1.171	1.168	1.142	0.987	1.455
1ST QUARTILE :	0.308	0.106	0.076	0.162	0.627
2ND QUARTILE :	0.633	0.238	0.183	0.298	2.154
3RD QUARTILE :	1.448	0.516	0.333	0.617	4.332

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : HAILTON/DAILY PRECIPITATION #10

PERIOD OF REPORT : JAN 6, 81 TO JAN 1, 82

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ TO PHR.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	: 117.0	48.0000	99.0000	66.0000	103.00	103.000	90.000
MAXIMUM	: 55.0	19.1790	3.2428	4.9378	171.45	23.241	26.400
MINIMUM	: 0.2	0.0643	0.0003	0.0344	0.32	0.085	0.089
RANGE	: 54.8	19.1146	3.2425	4.9014	171.13	23.156	26.311
ARITH. MEAN	: 8.5	2.0078	0.5487	1.1248	28.62	4.728	3.610
ARITH. STD. DEV.	: 10.5	3.1027	0.5810	0.9370	31.17	4.495	4.704
GEOM. MEAN	: 4.0	1.0596	0.2636	0.7678	14.78	2.767	2.000
GEOM. STD. DEV.	: 1.3	1.1496	1.5719	0.9923	1.33	1.236	1.137
1ST QUARTILE	: 1.7	0.5829	0.1310	0.4524	6.66	1.626	1.038
2ND QUARTILE	: 4.0	1.0570	0.3403	0.8273	16.65	3.744	1.915
3RD QUARTILE	: 12.1	2.2327	0.7865	1.4632	44.43	6.380	4.533

**** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APICS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : HAMILTON/DAILY PRECIPITATION #10

PERIOD OF REPORT : JAN 6, 81 TO JAN 1, 82

	CHLORIDE MG/M ³ 2	MAGNESIUM MG/M ³ 2	POTASSIUM MG/M ³ 2	SODIUM MG/M ³ 2	AMMONIUM AS N MG/M ³ 2
# OF SAMPLES :	101.000	90.000	87.000	79.000	90.000
MAXIMUM :	11.284	4.400	2.286	6.552	44.000
MINIMUM :	0.010	0.004	0.007	0.011	0.010
RANGE :	11.274	4.396	2.279	6.541	43.990
ARITH. MEAN :	1.932	0.473	0.445	1.263	3.829
ARITH. STD. DEV :	1.739	0.693	0.470	1.120	5.484
GEOM. MEAN :	1.254	0.221	0.269	0.795	1.963
GEOM. STD. DEV. :	1.087	1.338	1.121	1.168	1.323
1ST QUARTILE :	0.696	0.117	0.147	0.399	0.977
2ND QUARTILE :	1.592	0.202	0.267	0.942	2.288
3RD QUARTILE :	2.554	0.566	0.518	1.661	4.477

PAGE : 2

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY PRECIPITATION #05

PERIOD OF REPORT : FEB 1, 81 TO JAN 1, 82

	PRECIP.		FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
	M4	M4						
# OF SAMPLES :	122.0		56.0000	104.0000	65.0000	112.00	110.000	40.000
MAXIMUM :	37.2		3.4717	3.0237	4.5344	154.38	19.716	15.040
MINIMUM :	0.2		0.0014	0.0003	0.0546	0.15	0.078	0.140
RANGE :	37.0		3.4703	3.0234	4.4838	154.23	19.638	14.860
ARITH. MEAN :	6.5		0.8848	0.4527	0.9148	22.50	3.464	2.310
ARITH. STD. DEV. :	7.1		0.8593	0.5897	0.8926	28.93	3.597	3.007
GEOM. MEAN :	3.6		0.5564	0.1993	0.5896	10.95	1.942	1.308
GEOM. STD. DEV. :	1.2		1.1896	1.6380	1.0131	1.32	1.205	1.040
1ST QUARTILE :	1.6		0.3425	0.0886	0.3114	4.32	0.778	0.584
2ND QUARTILE :	3.6		0.6084	0.2654	0.6449	12.90	2.275	1.231
3RD QUARTILE :	9.0		1.1504	0.5529	1.1392	27.64	4.846	2.413

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY PRECIPITATION #05
PERIOD OF REPORT : FEB 1. 61 TO JAN 1. 62

	CHLORIDE MG/M ³	MAGNESIUM MG/M ³	POTASSIUM MG/M ³	SODIUM MG/M ³	AMMONIUM AS N MG/M ³
# OF SAMPLES :	103.000	95.000	98.000	94.000	92.000
MAXIMUM :	6.750	2.444	0.860	4.650	18.972
MINIMUM :	0.045	0.006	0.010	0.024	0.003
RANGE :	6.705	2.438	0.850	4.624	18.969
ARITH. MEAN :	1.339	0.306	0.238	0.892	2.886
ARITH. STD. DEV. :	1.308	0.411	0.231	0.881	3.572
GEOM. MEAN :	0.839	0.147	0.148	0.554	1.316
GEOM. STD. DEV. :	1.039	1.296	1.033	1.072	1.552
1ST QUARTILE :	0.428	0.062	0.079	0.294	0.583
2ND QUARTILE :	0.822	0.147	0.147	0.637	1.605
3RD QUARTILE :	1.756	0.373	0.303	1.125	3.699

**** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO/DAILY PRECIPITATION #14

PERIOD OF REPORT : OCT 16, 41 TO DEC 31, 81

# OF SAMPLES	PRECIP. MM	FREE H+ FIELD MG/4002	FREE H+ LAB MG/4002	TOTAL H+ TO PH8.3 MG/4002	SULPHATE MG/4002	NITRATE AS N MG/4002	CALCIUM MG/4002
MAXIMUM	29.0	4.0000	26.0000	10.0000	25.00	25.000	19.000
MINIMUM	12.0	0.3461	0.3508	0.7272	10.93	4.575	1.504
RANGE	0.1	0.0565	0.0033	0.1256	0.15	0.056	0.042
ARITH. MEAN	11.9	0.2896	0.3475	0.6016	10.79	4.519	1.462
ARITH. STD. DEV	2.4	0.2042	0.0752	0.3292	2.27	1.112	0.309
GEOM. MEAN	2.8	0.1574	0.0986	0.2017	2.84	1.301	0.414
GEOM. STD. DEV.	1.4	0.1504	0.0345	0.2817	1.19	0.552	0.153
1ST QUANTILE	1.1	0.9502	1.3170	0.5804	1.19	1.286	1.091
2ND QUANTILE	0.7	0.0674	0.0118	0.1761	0.49	0.193	0.060
3RD QUANTILE	1.1	0.2070	0.0416	0.2521	1.21	0.483	0.105
	3.4	0.3405	0.0820	0.3446	2.05	1.153	0.279

PAGE : 1

**** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
AP105 - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO/DAILY PRECIPITATION #14				PAGE : 2			
PERIOD OF REPORT : OCT 14 81 TO DEC 31 81							
# OF SAMPLES	CHLORIDE MG/4002	MAGNESIUM MG/4002	POTASSIUM MG/4002	SODIUM MG/4002	AMMONIUM AS N MG/4002		
MAXIMUM	25.000	19.000	19.000	19.000	15.000		
MINIMUM	0.560	0.211	0.150	0.300	2.700		
RANGE	0.028	0.002	0.008	0.017	0.003		
ADITH. MFAN	0.532	0.210	0.142	0.283	2.697		
ADITH. STD. DEV	0.163	0.029	0.064	0.124	0.693		
GEOM. MEAN	0.124	0.052	0.048	0.095	0.764		
GEOM. STD. DEV.	0.123	0.012	0.045	0.089	0.290		
1ST QUARTILE	0.073	1.243	0.941	0.902	1.834		
2ND QUARTILE	0.124	0.004	0.019	0.038	0.158		
3RD QUARTILE	0.207	0.010	0.047	0.088	0.365		
***** : INSUFFICIENT DATA	0.022	0.104	0.194	0.995			

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIQS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY PRECIPITATION #04

PERIOD OF REPORT : JAN 27. 61 TO JAN 1. 62

PAGE : 1

# OF SAMPLES	PRECIP. MM	FREE H. FIELD MG/Meq2	FREE H. LAB MG/Meq2	TOTAL H. TO PH8.3 MG/Meq2	SULPHATE MG/Meq2	NITRATE AS N MG/Meq2	CALCIUM MG/Meq2
1	129.0	31.0000	90.0000	62.0000	108.00	110.000	79.000
2	57.2	3.0718	3.2915	4.5188	133.65	16.016	15.732
3	0.1	0.0394	0.0009	0.0648	0.52	0.026	0.200
4	57.1	3.0320	3.2906	4.4540	133.13	15.990	15.532
5	6.6	0.7391	0.5415	1.0691	25.16	3.551	2.467
6	9.1	0.7500	0.6845	0.9834	29.10	3.328	2.743
7	2.9	0.4284	0.2149	0.6845	12.71	2.170	1.582
8	1.4	1.1780	1.6519	1.0258	1.30	1.121	0.939
9	1.0	0.1790	0.0765	0.2811	4.90	1.040	0.435
10	3.2	0.4609	0.2982	0.4921	14.79	2.256	1.422
11	4.2	0.9354	0.6798	1.3170	33.95	4.990	2.445

***** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

PAGE : 2

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STATION NAME : WELLESLEY/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 27. 61 TO JAN 1. 62

CHLOROLUF.

46/4002

OF SAMPLES

105.000

MAXIMUM

4.600

MINIMUM

0.013

RANGE

4.587

ARITH. MFAN

1.033

ARITH. STD. P.

0.946

GENM. MEAN

0.629

GEOM. STN. DI

1.129

1ST QUARTILE

0.285

2ND QUARTILE

0.6880

3RD QUARTILE

1.411

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
API05 - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITMAN CREEK/DAILY PRECIPITATION #09

PERIOD OF REPORT : JAN 6. 81 TO JAN 1.82

PAGE : 1

	PRECIP. MM	FREE H. FIELD MG/4002	FREE H. LAB MG/4002	TOTAL H. TO PH8.3 MG/4002	SULPHATE MG/4002	NITRATE AS N MG/4002	CALCIUM MG/4002
# OF SAMPLES	110.0	56.0000	91.0000	63.0000	86.00	90.000	74.000
MAXIMUM	51.0	18.5170	3.9215	5.3240	264.00	21.560	30.360
MINIMUM	0.1	0.0290	0.0003	0.0317	0.79	0.115	0.171
RANGE	50.9	18.4880	3.9212	5.2923	263.21	21.445	30.189
ARITH. MEAN	8.9	2.0901	0.5448	1.2243	30.41	4.600	3.399
ARITH. STD. DEV	10.9	3.8106	0.8258	1.3298	44.83	4.702	5.407
GEOM. MEAN	4.2	0.7491	0.1967	0.7296	14.24	2.670	1.468
GEOM. STD. DEV.	1.3	1.4576	1.7308	1.0718	1.30	1.167	1.166
1ST QUANTILE	1.4	0.2279	0.0909	0.3248	5.79	1.286	0.701
2ND QUANTILE	4.8	0.7915	0.2465	0.7571	18.04	2.822	1.630
3RD QUANTILE	12.2	1.5744	0.5895	1.4321	34.51	6.083	3.927

**** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : WHITMAN CREEK/DAILY PRECIPITATION #09

PERIOD OF REPORT : JAN 6, 81 TO JAN 1, 82

PAGE : 2

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES :	82.000	71.000	80.000	73.000	86.000
MAXIMUM :	28.750	8.200	2.772	17.500	22.000
MINIMUM :	0.012	0.007	0.011	0.070	0.029
RANGE :	28.737	8.193	2.761	17.430	21.971
ARITH. MEAN :	2.025	0.580	0.397	1.031	3.426
ARITH. STD. DEV. :	3.820	1.163	0.474	2.233	4.243
GEOM. MEAN :	0.915	0.226	0.214	0.465	1.603
GEOM. STD. DEV. :	1.273	1.363	1.192	1.120	1.396
1ST QUARTILE :	0.416	0.072	0.095	0.220	0.659
2ND QUARTILE :	0.949	0.231	0.238	0.363	1.843
3RD QUARTILE :	1.856	0.502	0.476	1.015	4.498

**** : INSUFFICIENT DATA

PART VIII

SUMMARY STATISTICS OF OBSERVED DEPOSITION BY REGION



ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1, 81 TO JAN 1, 82

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	: 510.0	234.0000	455.0000	297.0000	461.00	462.000	366.000
MAXIMUM	: 48.2	6.5173	4.7214	5.9710	197.75	21.700	19.000
MINIMUM	: 0.1	0.0014	0.0003	0.0502	0.04	0.007	0.009
RANGE	: 48.1	6.5159	4.7210	5.9208	197.71	21.692	18.990
ARITH. MEAN	: 6.6	0.8953	0.4289	0.8952	21.68	3.301	1.888
ARITH. STD. DEV	: 7.4	0.9951	0.6024	0.8983	29.45	3.481	2.810
GEOM. MEAN	: 3.5	0.5552	0.1874	0.5891	10.23	1.843	0.873
GEOM. STD. DEV.	: 1.2	1.0903	1.5386	0.9533	1.35	1.254	1.300
1ST QUARTILE	: 1.6	0.3200	0.0824	0.3209	4.20	0.960	0.357
2ND QUARTILE	: 3.8	0.5783	0.2414	0.6363	11.29	2.166	0.953
3RD QUARTILE	: 8.0	1.0505	0.4946	1.0914	25.92	4.555	1.998

***** : INSUFFICIENT DATA

NOTE(1): PRFCIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1. 81 TO JAN 1.82

PAGE : 2

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES :	454.000	374.000	383.000	383.000	386.000
MAXIMUM :	27.040	3.886	10.570	12.939	18.972
MINIMUM :	0.006	0.002	0.003	0.011	0.000
RANGE :	27.034	3.884	10.567	12.928	18.972
ARITH. MEAN :	1.115	0.280	0.278	0.574	2.645
ARITH. STD. DEV :	1.757	0.482	0.660	0.932	3.310
GEOM. MEAN :	0.577	0.109	0.128	0.284	1.118
GEOM. STD. DEV. :	1.230	1.445	1.263	1.205	1.674
1ST QUARTILE :	0.282	0.039	0.057	0.115	0.527
2ND QUARTILE :	0.633	0.120	0.130	0.281	1.452
3RD QUARTILE :	1.320	0.304	0.312	0.678	3.376

**** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : SEP 23, 81 TO DEC 31, 81

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES :	107.0	18.0000	94.0000	49.0000	86.00	85.000	69.000
MAXIMUM :	18.9	0.9693	1.0628	1.7615	45.36	10.080	2.700
MINIMUM :	0.1	0.0389	0.0010	0.0666	0.04	0.004	0.006
RANGE :	18.8	0.9304	1.0618	1.6949	45.32	10.076	2.694
ARITH. MFAN :	3.5	0.2558	0.1187	0.3866	4.52	1.258	0.419
ARITH. STD. DEV :	4.2	0.2449	0.1792	0.3258	6.86	1.652	0.529
GEOM. MEAN :	1.6	0.1724	0.0493	0.2970	1.88	0.560	0.197
GEOM. STD. DEV. :	1.4	0.9418	1.4091	0.7133	1.46	1.567	1.331
1ST QUANTILE :	0.6	0.0678	0.0152	0.1851	0.71	0.249	0.071
2ND QUANTILE :	1.6	0.2108	0.0568	0.2572	2.35	0.761	0.185
3RD QUANTILE :	4.3	0.2993	0.1445	0.4871	5.12	1.535	0.482

**** : INSUFFICIENT DATA
NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION:
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : SEP 23, 81 TO DEC 31, 81

PAGE : 2

	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N
	MG/1000	MG/1000	MG/1000	MG/1000	MG/1000
# OF SAMPLES :	87.000	69.000	69.000	69.000	67.000
MAXIMUM :	3.300	0.406	1.024	3.450	5.500
MINIMUM :	0.005	0.002	0.006	0.006	0.001
AVERAGE :	3.245	0.404	1.018	3.444	5.499
ADITH. MEAN :	0.204	0.048	0.124	0.277	0.751
ADITH. STD. DEV :	0.384	0.077	0.187	0.520	0.911
GEOM. MEAN :	0.102	0.020	0.062	0.116	0.294
GEOM. STD. DEV. :	1.211	1.287	1.178	1.267	1.862
1ST QUARTILE :	0.047	0.009	0.025	0.043	0.137
2ND QUARTILE :	0.104	0.016	0.067	0.096	0.465
3RD QUARTILE :	0.243	0.046	0.126	0.240	0.990

***** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1. 81 10 JAN 1.82

	PRECIP. MM	FREE H+ FIELD MG/M ²	FREE H+ LAB MG/M ²	TOTAL H+ TO PHA.3 MG/M ²	SULPHATE MG/M ²	NITRATE AS N MG/M ²	CALCIUM MG/M ²
# OF SAMPLES	536.0	225.0000	430.0000	299.0000	436.00	443.000	354.000
MAXIMUM	55.0	19.1790	3.9215	5.3240	264.00	61.920	47.520
MINIMUM	0.0	0.0149	0.0003	0.0317	0.24	0.012	0.060
RANGE	55.0	19.1641	3.9212	5.2923	263.76	61.908	47.460
ARITH. MEAN	7.5	1.5024	0.4843	0.9843	24.97	4.214	2.833
ARITH. STD. DEV	9.1	2.5636	0.6173	0.9546	31.29	4.935	4.529
GEOM. MEAN	3.5	0.6902	0.2099	0.6471	12.87	2.349	1.438
GEOM. STD. DEV.	1.4	1.2931	1.5990	0.4916	1.27	1.246	1.166
1ST QUANTILE	1.4	0.3211	0.0966	0.3566	5.76	1.298	0.443
2ND QUANTILE	4.1	0.7462	0.2531	0.6900	15.32	2.815	1.399
3RD QUANTILE	9.9	1.5247	0.6108	1.2186	31.47	5.555	3.270

PAGE : 1

**** : INSUFFICIENT DATA
NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1 1981 TO JAN 1 1982

PAGE : 2

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES :	428.000	340.000	376.000	352.000	403.000
MAXIMUM :	28.750	10.080	8.000	17.500	44.000
MINIMUM :	0.010	0.003	0.006	0.002	0.002
RANGE :	28.740	10.077	7.994	17.498	43.998
ARITH. MEAN :	1.605	0.449	0.363	0.984	3.066
ARITH. STD. DEV. :	2.262	0.883	0.565	1.461	1.953
GENM. MEAN :	0.858	0.189	0.196	0.497	1.463
GENM. STD. DEV. :	1.227	1.346	1.155	1.233	1.492
1ST QUARTILE :	0.441	0.078	0.096	0.215	0.731
2ND QUARTILE :	0.364	0.185	0.204	0.512	1.874
3RD QUARTILE :	1.864	0.491	0.431	1.191	3.462

**** : INSUFFICIENT DATA

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
API05 - ACID PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1, 01 TO JAN 1, 02

PAGE : 1

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAH MG/M**2	TOTAL H+ TO PH8.3 MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	: 559.0	124.0000	390.0000	269.0000	459.00	464.000	330.000
MAXIMUM	: 60.5	3.1936	4.0545	5.2100	217.50	23.634	47.077
MINIMUM	: 0.0	0.0016	0.0001	0.0447	0.28	0.012	0.091
RANGE	: 60.5	3.1919	4.0544	5.1653	217.22	23.622	46.986
ARITH. MEAN	: 6.3	0.7349	0.5212	1.0181	25.70	3.821	2.851
ARITH. STD. DEV.	: 8.2	0.6785	0.6469	0.9538	30.82	3.713	3.931
GEOM. MEAN	: 2.8	0.4009	0.2111	0.6369	12.57	2.118	1.683
GEOM. STD. DEV.	: 1.4	1.4278	1.6539	1.0687	1.36	1.300	1.029
1ST QUARTILE	: 1.0	0.2316	0.0836	0.2875	5.17	1.090	0.814
2ND QUARTILE	: 3.2	0.5449	0.2774	0.7824	15.31	2.694	1.668
3RD QUARTILE	: 8.0	1.0240	0.7090	1.3688	35.43	5.516	3.450

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITION
APIOS - ACID PRECIPITATION IN ONTARIO STUDY

PAGE : 2

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1. 81 TO JAN 1. 82

	CHLORIDE MG/M ³	MAGNESIUM MG/M ³	POTASSIUM MG/M ³	SODIUM MG/M ³	AMMONIUM AS N MG/M ³
# OF SAMPLES :	451.000	336.000	364.000	361.000	372.000
MAXIMUM :	16.920	6.440	6.342	11.200	45.738
MINIMUM :	0.013	0.013	0.009	0.020	0.004
RANGE :	16.907	6.427	6.333	11.180	45.734
ARITH. MEAN :	1.349	0.500	0.363	0.723	3.660
ARITH. STD. DEV. :	1.552	0.666	0.603	0.946	4.195
GEOM. MEAN :	0.802	0.275	0.200	0.437	2.132
GEOM. STD. DEV. :	1.133	1.142	1.081	1.026	1.206
1ST QUANTILE :	0.418	0.131	0.096	0.211	1.081
2ND QUANTILE :	0.950	0.290	0.207	0.408	2.624
3RD QUANTILE :	1.768	0.610	0.422	0.960	4.899

***** : INSUFFICIENT DATA

PART IX

STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED CONCENTRATION



STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED CONCENTRATION NORMALITY VS. LOG-NORMALITY

CENTRAL REGION

Variable	Units	Sample Size	Critical D $\alpha = 0.05$	Observed Results			log _e (Observed Results)		
				Skewness	Kurtosis	D Statistic	Skewness	Kurtosis	D Statistic
Gauge Depth	mm	510	0.040	2.02	4.66	0.193	-0.30	-0.32	0.050
Conductance	um ho/cm	305	0.051	2.21	8.36	0.162	-0.05	-0.04	0.036*
Field pH	-	234	0.058	1.77	8.65	0.099	0.10	4.94	0.080
Lab pH	-	455	0.042	1.67	5.24	0.115	1.06	2.87	0.089
Free Hydrogen (Lab)	mg/l	455	0.042	2.16	6.08	0.157	-1.67	5.24	0.115
Total Hydrogen	mg/l	297	0.052	2.48	11.38	0.138	0.16	0.28	0.039*
Sulphate	mg/l	461	0.042	1.86	4.57	0.126	0.74	1.37	0.055
Nitrate as N	mg/l	462	0.042	1.82	3.98	0.158	0.92	2.50	0.054
Calcium	mg/l	366	0.047	3.07	12.91	0.239	-0.06	-0.47	0.042*
Chloride	mg/l	454	0.042	3.27	15.21	0.197	-0.79	0.99	0.095
Magnesium	mg/l	374	0.046	3.11	13.40	0.260	0.03	-0.92	0.102
Potassium	mg/l	383	0.046	5.39	40.18	0.277	0.14	-0.46	0.117
Sodium	mg/l	383	0.046	5.14	35.86	0.281	0.0	-0.09	0.065
Ammonium as N	mg/l	386	0.045	1.48	2.36	0.143	-1.45	2.98	0.093

* D-statistic passes normality criterion

STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED CONCENTRATION NORMALITY VS. LOG-NORMALITY

NORTHWESTERN REGION

Variable	Units	Sample Size	Critical D $\alpha = 0.05$	Observed Results			log _e (Observed Results)		
				Skewness	Kurtosis	D Statistic	Skewness	Kurtosis	D Statistic
Gauge Depth	mm	107	0.086	1.76	2.49	0.209	-0.23	-0.64	0.068*
Conductance	umho/cm	57	0.117	3.60	16.20	0.238	0.53	0.56	0.084*
Field pH	-	18	-	-	-	-	-	-	-
Lab pH	-	94	0.092	0.44	0.96	0.070*	0.10	0.59	0.063*
Free Hydrogen (Lab)	mg/l	94	0.092	2.98	12.37	0.169	-0.44	0.96	0.070*
Total Hydrogen	mg/l	49	-	-	-	-	-	-	-
Sulphate	mg/l	86	0.096	3.33	12.10	0.279	0.23	-0.02	0.063*
Nitrate as N	mg/l	86	0.096	3.58	15.98	0.213	-0.96	2.55	0.094*
Calcium	mg/l	69	0.107	4.27	23.63	0.270	-0.03	0.09	0.087*
Chloride	mg/l	87	0.095	2.29	6.02	0.210	-0.44	-0.71	0.158
Magnesium	mg/l	69	0.107	3.72	15.43	0.322	0.97	0.07	0.245
Potassium	mg/l	69	0.107	3.50	13.49	0.297	0.49	-0.07	0.132
Sodium	mg/l	69	0.107	1.98	4.81	0.205	-0.01	-0.96	0.109
Ammonium as N	mg/l	67	0.108	4.20	22.72	0.251	-1.08	1.48	0.128

* D-statistic passes normality criterion

STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED CONCENTRATION NORMALITY VS. LOG-NORMALITY

SOUTHEASTERN REGION

Variable	Units	Sample Size	Critical D $\alpha = 0.05$	Observed Results			log _e (Observed Results)		
				Skewness	Kurtosis	D Statistic	Skewness	Kurtosis	D Statistic
Gauge Depth	mm	537	0.039	2.24	5.81	0.208	-0.51	-0.12	0.068
Conductance	umho/cm	300	0.052	1.40	4.24	0.079	-0.60	0.25	0.077
Field pH	-	226	0.059	0.32	1.34	0.068	-0.16	0.67	0.072
Lab pH	-	433	0.043	1.82	5.41	0.117	1.23	2.82	0.090
Free Hydrogen (Lab)	mg/l	433	0.043	1.99	6.74	0.121	-1.82	5.41	0.117
Total Hydrogen	mg/l	300	0.052	1.26	2.32	0.091	-0.13	-0.34	0.040*
Sulphate	mg/l	438	0.043	1.85	5.70	0.107	-0.92	1.85	0.086
Nitrate as N	mg/l	445	0.042	4.99	38.34	0.186	-0.78	2.05	0.061
Calcium	mg/l	355	0.047	4.45	26.55	0.267	-0.03	-0.18	0.027*
Chloride	mg/l	430	0.043	3.09	14.01	0.179	-0.74	1.38	0.083
Magnesium	mg/l	341	0.048	5.34	40.80	0.293	-0.08	-0.63	0.087
Potassium	mg/l	378	0.046	4.48	27.55	0.261	0.09	-0.32	0.113
Sodium	mg/l	354	0.047	2.25	5.46	0.206	-0.20	-0.43	0.062
Ammonium as N	mg/l	406	0.044	1.63	3.16	0.142	-1.69	4.30	0.121

* D-statistic passes normality criterion

STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED CONCENTRATION NORMALITY VS. LOG-NORMALITY

SOUTHWESTERN REGION

Variable	Units	Sample Size	Critical D $\alpha = 0.05$	Observed Results			log _e (Observed Results)		
				Skewness	Kurtosis	D Statistic	Skewness	Kurtosis	D Statistic
Gauge Depth	mm	559	0.037	2.75	10.76	0.224	-0.37	-0.30	0.054
Conductance	umho/cm	276	0.053	1.52	2.49	0.138	-0.35	0.37	0.043*
Field pH	-	128	0.077	2.21	6.72	0.168	1.68	4.06	0.153
Lab pH	-	390	0.045	1.39	3.82	0.109	0.80	2.05	0.084
Free Hydrogen (Lab)	mg/l	390	0.045	3.59	21.42	0.175	-1.39	3.82	0.109
Total Hydrogen	mg/l	269	0.054	1.75	3.83	0.151	0.14	-0.07	0.043*
Sulphate	mg/l	459	0.041	2.23	8.42	0.141	-0.41	0.22	0.034*
Nitrate as N	mg/l	464	0.041	2.84	12.37	0.146	-1.15	3.19	0.082
Calcium	mg/l	330	0.049	2.59	9.53	0.192	-0.06	-0.63	0.053
Chloride	mg/l	451	0.041	5.75	56.67	0.227	-0.90	1.65	0.101
Magnesium	mg/l	336	0.048	2.26	6.61	0.188	-0.57	0.00	0.071
Potassium	mg/l	364	0.046	5.96	47.33	0.280	0.19	0.08	0.102
Sodium	mg/l	361	0.046	4.67	38.71	0.231	-0.09	-0.34	0.054
Ammonium as N	mg/l	372	0.046	3.71	21.22	0.163	-1.47	7.04	0.069

* D-statistic passes normality criterion

PART X

STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED DEPOSITION

6AR7-14/15



STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED DEPOSITION NORMALITY VS. LOG-NORMALITY

CENTRAL REGION

Variable	Units	Sample Size	Critical D $\alpha = 0.05$	Observed Results			log _e (Observed Results)		
				Skewness	Kurtosis	D Statistic	Skewness	Kurtosis	D Statistic
Free Hydrogen (Field)	mg/m**2	234	0.058	2.78	9.74	0.205	-1.33	6.15	0.072
Free Hydrogen (Lab)	mg/m**2	455	0.042	3.28	13.59	0.238	-1.09	2.23	0.079
Total Hydrogen	mg/m**2	297	0.052	2.41	7.34	0.173	-0.22	-0.17	0.052
Sulphate	mg/m**2	461	0.042	2.93	10.26	0.231	-0.50	0.49	0.047
Nitrate as N	mg/m**2	462	0.042	2.16	5.93	0.172	-0.93	1.51	0.072
Calcium	mg/m**2	366	0.047	3.27	12.98	0.250	-0.19	0.07	0.034*
Chloride	mg/m**2	454	0.042	8.20	107.68	0.264	-0.47	0.54	0.047
Magnesium	mg/m**2	374	0.046	4.10	21.70	0.282	-0.10	-0.34	0.031*
Potassium	mg/m**2	383	0.047	11.74	168.48	0.339	-0.24	0.28	0.031*
Sodium	mg/m**2	383	0.047	7.10	82.37	0.273	0.05	-0.48	0.045*
Ammonium as N	mg/m**2	386	0.045	2.42	6.79	0.212	-1.35	2.79	0.130

* D-statistic passes normality criterion

STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED DEPOSITION NORMALITY VS. LOG-NORMALITY

NORTHWESTERN REGION

Variable	Units	Sample Size	Critical D $\alpha = 0.05$	Observed Results			log _e (Observed Results)		
				Skewness	Kurtosis	D Statistic	Skewness	Kurtosis	D Statistic
Free Hydrogen (Field)	mg/m**2	18	-	-	-	-	-	-	-
Free Hydrogen (Lab)	mg/m**2	94	0.092	3.12	11.89	0.256	-0.07	-0.49	0.052*
Total Hydrogen	mg/m**2	49	-	-	-	-	-	-	-
Sulphate	mg/m**2	86	0.096	3.47	15.63	0.257	-0.37	-0.02	0.071*
Nitrate as N	mg/m**2	86	0.096	3.10	12.49	0.224	-1.13	1.81	0.117
Calcium	mg/m**2	69	0.107	2.14	5.23	0.241	-0.21	-0.28	0.067*
Chloride	mg/m**2	87	0.096	6.36	49.48	0.297	-0.11	0.21	0.045*
Magnesium	mg/m**2	69	0.107	2.84	8.79	0.275	0.39	-0.44	0.105*
Potassium	mg/m**2	69	0.107	3.17	10.85	0.291	0.15	-0.18	0.069*
Sodium	mg/m**2	69	0.107	4.27	21.84	0.301	0.39	-0.02	0.068*
Ammonium as N	mg/m**2	67	0.108	2.69	10.50	0.205	-1.39	2.02	0.134

* D-statistic passes normality criterion

STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED DEPOSITION NORMALITY VS. LOG-NORMALITY

SOUTHEASTERN REGION

Variable	Units	Sample Size	Critical D $\alpha = 0.05$	Observed Results			log _e (Observed Results)		
				Skewness	Kurtosis	D Statistic	Skewness	Kurtosis	D Statistic
Free Hydrogen (Field)	mg/m**2	225	0.059	4.68	26.53	0.281	-0.25	0.39	0.051*
Free Hydrogen (Lab)	mg/m**2	431	0.043	2.54	7.82	0.217	-1.23	2.59	0.080
Total Hydrogen	mg/m**2	299	0.052	2.14	5.37	0.163	-0.45	0.19	0.068
Sulphate	mg/m**2	436	0.043	3.21	14.95	0.215	-0.46	-0.03	0.063
Nitrate as N	mg/m**2	443	0.042	4.77	43.71	0.197	-0.95	1.35	0.099
Calcium	mg/m**2	354	0.047	5.06	35.78	0.270	0.03	-1.10	0.024*
Chloride	mg/m**2	428	0.043	5.60	51.19	0.242	-0.70	1.23	0.062
Magnesium	mg/m**2	340	0.048	6.69	60.20	0.307	-0.11	0.02	0.040*
Potassium	mg/m**2	376	0.046	7.60	90.99	0.264	-0.27	0.16	0.045*
Sodium	mg/m**2	352	0.048	5.44	48.97	0.251	-0.34	0.66	0.051
Ammonium as N	mg/m**2	404	0.044	4.23	31.55	0.219	-1.24	2.49	0.092

* D-statistic passes normality criterion

STATISTICAL DISTRIBUTION COMPARISON OF OBSERVED DEPOSITION NORMALITY VS. LOG-NORMALITY

SOUTHWESTERN REGION

Variable	Units	Sample Size	Critical D $\alpha = 0.05$	Observed Results			log _e (Observed Results)		
				Skewness	Kurtosis	D Statistic	Skewness	Kurtosis	D Statistic
Free Hydrogen (Field)	mg/m**2	128	0.077	1.51	2.30	0.140	-1.49	2.65	0.162
Free Hydrogen (Lab)	mg/m**2	390	0.045	2.25	5.99	0.210	-0.90	0.89	0.090
Total Hydrogen	mg/m**2	269	0.054	1.78	3.75	0.154	-0.46	-0.50	0.095
Sulphate	mg/m**2	459	0.041	2.52	8.71	0.205	-0.51	-0.27	0.070
Nitrate as N	mg/m**2	464	0.041	1.67	3.54	0.153	-0.98	1.04	0.077
Calcium	mg/m**2	330	0.049	5.80	53.21	0.241	0.02	-0.14	0.026*
Chloride	mg/m**2	451	0.041	4.42	32.95	0.195	-0.69	0.65	0.068
Magnesium	mg/m**2	336	0.048	4.26	27.76	0.232	-0.20	-0.14	0.037*
Potassium	mg/m**2	364	0.046	6.52	56.00	0.279	-0.04	0.31	0.032*
Sodium	mg/m**2	361	0.046	5.52	47.86	0.229	-0.14	0.02	0.045*
Ammonium as N	mg/m**2	372	0.046	4.37	32.82	0.192	-1.17	3.22	0.100

* D-statistic passes normality criterion

POOR

QUALITY

ORIGINAL